

Inflation Report

February 2013



BANK OF ENGLAND





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In order to maintain price stability, the Government has set the Bank's Monetary Policy Committee (MPC) a target for the annual inflation rate of the Consumer Prices Index of 2%. Subject to that, the MPC is also required to support the Government's objective of maintaining high and stable growth and employment.

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves two purposes. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aid to our decision making. Second, its publication allows us to share our thinking and explain the reasons for our decisions to those whom they affect.

Although not every member will agree with every assumption on which our projections are based, the fan charts represent the MPC's best collective judgement about the most likely paths for inflation and output, and the uncertainties surrounding those central projections.

This *Report* has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.

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The Overview of this *Inflation Report* is available in PDF at
www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13febo.pdf.

The entire *Report* is available in PDF at
www.bankofengland.co.uk/publications/Pages/inflationreport/2013/ir1301.aspx.

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at
www.bankofengland.co.uk/publications/Pages/inflationreport/2013/ir1301.aspx.

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Overview

Over the past year, there has been considerable volatility in quarterly output growth. Looking through the influence of temporary factors, overall output appears to have been broadly flat. In large part that reflects sharp falls in particular sectors of the economy that are unlikely to be repeated in 2013. In contrast, the combined output of the manufacturing and services sectors has grown modestly. The weakness in overall output sits in sharp contrast to continued strong employment growth, suggesting that the financial crisis may have had some impact on the effective supply capacity of the economy.

The MPC continues to judge that the UK economy is set for a slow but sustained recovery in both demand and effective supply, aided by a further easing in credit conditions — supported by the Bank's programme of asset purchases and the Funding for Lending Scheme — and some improvement in the global environment. But the risks are weighted to the downside, not least because of the challenges facing the euro area.

Inflation has remained stubbornly above the 2% target. Despite subdued pay growth, weak productivity has meant no corresponding fall in domestic cost pressures. And increases in university tuition fees and domestic energy bills have added to inflation more recently. CPI inflation is likely to rise further in the near term and may remain above the 2% target for the next two years. But inflation is expected to fall back to around the target thereafter, as a gradual revival in productivity growth dampens increases in domestic costs and external price pressures fade.

Financial and credit markets

Since the November *Inflation Report*, the MPC has maintained the size of its asset purchase programme at £375 billion and the level of Bank Rate at 0.5%. Policy initiatives in a number of countries since last summer have led to a marked easing of financial market stresses. Investors' perceptions of near-term risks have diminished and their willingness to hold risky assets has increased: yields on vulnerable euro-area countries' sovereign debt have continued to fall; and global equity prices have risen significantly, most notably for banks. Sterling has depreciated by more than 3% in effective terms.

UK banks' funding costs have fallen further, aided by the improved financial environment and the Funding for Lending Scheme (FLS). And there is growing evidence that this is feeding into private sector credit conditions: many loan rates to households and companies have fallen and some measures of credit availability have improved. But it is still too early to know the extent to which this improvement in funding conditions will lead to an increase in net lending to the real economy, which remains flat.

Demand and supply

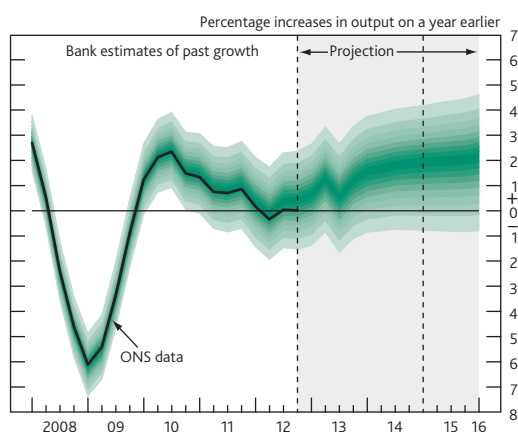
In the first three quarters of 2012, UK export markets expanded moderately as persistent weakness in the euro area was offset by solid growth in other advanced trading partners. Despite that, falls in services exports dragged down total UK exports.

At home, GDP is estimated to have contracted by 0.3% in 2012 Q4. That fall largely reflected an unwinding of the temporary boost from the Olympics. Over 2012 as a whole, total output was broadly flat, held back by sharp falls in construction output and in oil and gas extraction. The combined output of the manufacturing and services sectors grew modestly.

The flatness of total output contrasts with robust increases in private sector employment. Indeed, labour productivity has fallen back to levels last seen in 2005. This suggests that the effective capacity of the economy to supply goods and services may have been impaired. That may be a consequence of the sustained weakness in demand and so prove to be temporary. But it may also reflect other factors, such as banking sector difficulties, which may persist even as demand recovers.

The Committee's projections are conditioned on the tax and spending plans set out in the 2012 March *Budget*, updated for the 2012 Autumn Statement. They also take account of the Government's decision to use the cash flows generated by the Asset Purchase Facility to pay down government debt, which has an effect similar to the MPC purchasing gilts of the same value.

Chart 1 GDP projection based on market interest rate expectations and £375 billion asset purchases



The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP growth is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 1**, the probabilities in the lower bands are slightly larger than those in the upper bands at Years 1, 2 and 3. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

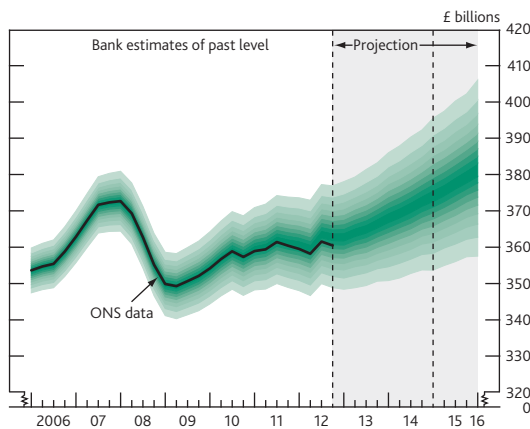
The outlook for GDP growth

Chart 1 shows the Committee's best collective judgement for four-quarter GDP growth, assuming that Bank Rate follows a path implied by market interest rates and the size of the asset purchase programme stays at £375 billion. Growth is likely to remain weak in the near term. But further out, a continued easing in domestic credit conditions — supported by the Bank's asset purchase programme and the FLS — together with a stronger global backdrop, underpin a slow recovery in both demand and effective supply.

Some of the biggest risks to the growth outlook stem from overseas. Although recent euro-area policy initiatives have probably lessened the chance that the necessary adjustments to indebtedness and competitiveness will occur in a disorderly manner, this threat remains. As in previous *Reports*, the Committee's fan charts exclude these more extreme outcomes, but they assume that the adjustments are likely to be associated with a prolonged period of sluggish euro-area growth. More generally, the extent to which recent improvements in financial market conditions will persist and spur a strengthening in global demand is uncertain, as is the degree to which UK exporters will be able to capitalise on any such strengthening.

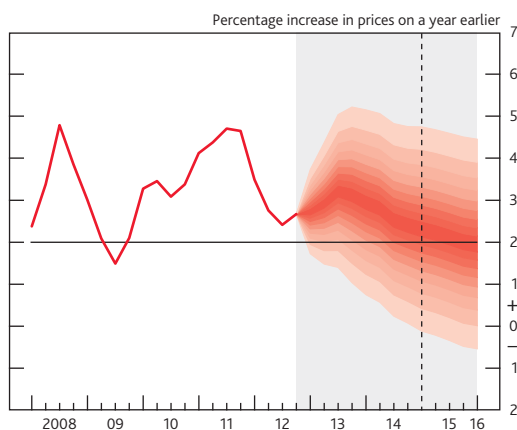
Domestically, the strength and sustainability of the recovery will rest on: the extent to which households and companies have

Chart 2 Projection of the level of GDP based on market interest rate expectations and £375 billion asset purchases



Chained-volume measure (reference year 2009). See the footnote to Chart 1 for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with Chart 1. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

Chart 3 CPI inflation projection based on market interest rate expectations and £375 billion asset purchases



The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outcomes of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Chart 3, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

already adjusted to the impact of the financial crisis; the degree to which productivity and expectations of future supply pick up alongside demand; the impact of fiscal consolidation; and on whether the recent easing in credit conditions continues and prompts higher lending to the real economy.

Taking those risks into account, the Committee's best collective judgement is that the economy is likely to see a slow but sustained recovery over the next three years. The expansion is expected to be weak by historical standards, mirroring the relatively subdued prospects for both global demand and the supply capacity of the domestic economy. GDP is likely to remain below its pre-crisis level until 2015 (Chart 2).

Costs and prices

CPI inflation was 2.7% in December, up from 2.2% in September. That rise primarily reflected increases in university tuition fees and retail energy bills. Oil prices are slightly higher than three months ago. Most measures of households' longer-term inflation expectations remain close to their series averages.

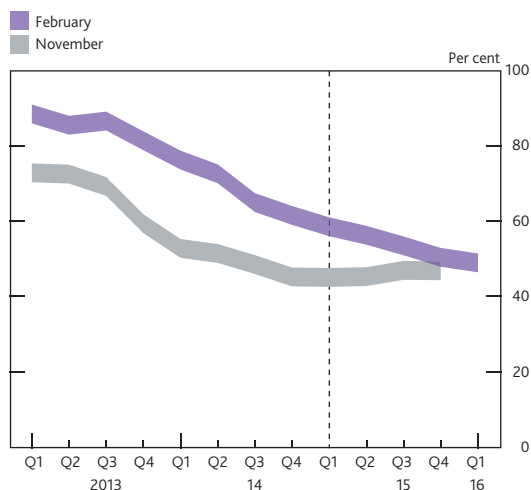
The prices of some goods and services are particularly sensitive to regulatory factors and less so to the balance of domestic demand and supply. Regulatory decisions directly affect the prices charged for some items, such as university tuition fees, and are a key determinant of the costs faced by some companies, such as the distribution fees charged to domestic energy suppliers. The contribution to inflation of such administered and regulated prices rose to around 1 percentage point at the end of 2012. That was more than its recent average and the contribution is likely to remain around that level over much of the forecast period.

Unemployment has edged lower, although it is still elevated. Labour market slack continues to bear down on pay growth, which remains unusually weak. Nonetheless, weak productivity growth means that companies' unit labour costs have continued to rise faster than their average historical rate.

The outlook for inflation

Chart 3 shows the Committee's best collective judgement of the outlook for CPI inflation, based on the same assumptions as Chart 1. Inflation is likely to rise further in the near term and may remain above the 2% target for the next two years, reflecting sterling's recent depreciation and the persistent contribution from administered and regulated prices. That persistent contribution is increasingly offset by a gentle moderation in domestic cost growth, aided by a gradual revival in productivity growth, and an easing in external price pressures, such that inflation is likely to fall back to around the target by the end of the forecast period. The outlook for inflation over much of the forecast period is higher than in the November *Report*, reflecting the impacts of administered prices and the lower exchange rate.

Chart 4 An indicator of the probability that inflation will be above the target



The February and November swathes in this chart are derived from the same distributions as **Chart 3** and **Chart 5.4** on page 40 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swathes reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

The Committee judges that demand and effective supply are likely to continue to move reasonably closely together. This implies that some of the uncertainties around the outlook for GDP growth should have only limited implications for spare capacity and hence inflation. Even so, the evolution of spare capacity in the economy and the extent to which it affects wage and price-setting behaviour are still likely to have an important bearing on inflation.

There are a number of other sources of uncertainty affecting the inflation outlook. The extent to which changes in relative prices — including administered and regulated prices — affect the overall inflation rate is hard to predict. Inflation is sensitive to commodity prices and the exchange rate, both of which are prone to move sharply. And the outturn for inflation will depend on the extent to which companies' profit margins are restored through them raising prices rather than reducing costs.

There remains a range of views among Committee members regarding the relative strength of these different factors. On balance, the Committee's best collective judgement is that inflation is more likely to be above than below the 2% target for much of the forecast period, but those risks are broadly balanced by the end (**Chart 4**).

The policy decision

At its February meeting, the Committee noted that a slow recovery in GDP growth was likely, although there was a risk that growth could continue to disappoint on the downside. Inflation was set to rise further in the near term and could remain above the target for the next two years. But it was likely to fall back to around the target by the end of 2015.

The Committee discussed the appropriate policy response to the combination of the weakness in the economy and the prospect of a further prolonged period of above-target inflation. It agreed that, as long as domestic cost and price pressures remained consistent with inflation returning to the target in the medium term, it was appropriate to look through the temporary, albeit protracted, period of above-target inflation. Attempting to bring inflation back to the target sooner by removing the current policy stimulus more quickly than currently anticipated by financial markets would risk derailing the recovery and undershooting the inflation target in the medium term. The MPC's remit is to deliver price stability, but to do so in a way that avoids undesirable volatility in output. The Committee judged that its policy stance was fully consistent with that remit. The Committee agreed that it stood ready to provide additional monetary stimulus if warranted by the outlook for growth and inflation.

In light of those considerations, the Committee decided that it was appropriate to maintain Bank Rate at 0.5% and the size of the asset purchase programme at £375 billion in order to meet the 2% CPI inflation target over the medium term.

1 Money and asset prices

Policy initiatives taken by several major central banks since Summer 2012 have contributed to a revival in financial market sentiment. Since the *November Report*, investors' perceptions of near-term risks have diminished further and their willingness to hold risky assets has increased. The perceived reduction in risk, together with the Funding for Lending Scheme, has reduced UK bank funding costs. Those falls in bank funding costs have been reflected in lower loan rates to households and businesses, and there have been signs of an improvement in credit availability. Loan growth remained subdued. The sterling ERI fell.

Monetary policy in most advanced economies has remained highly stimulative (Section 1.1). That, together with a range of other policy measures introduced since Summer 2012, has contributed to a revival in financial market sentiment (Section 1.2). Indicators of UK bank funding costs have fallen further, in part reflecting the impact of the Funding for Lending Scheme (FLS) (Section 1.3), and there are signs that credit conditions are improving. But it will take time for lower bank funding costs, and the extra incentives to lend provided by the FLS, to be reflected in increased lending. Relative to recent years, household deposit growth remained strong (Section 1.4).

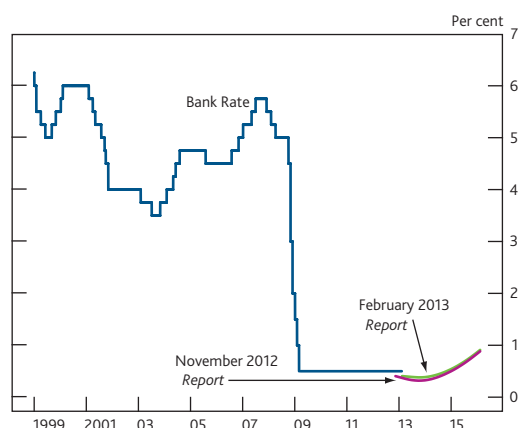
1.1 Monetary policy

Since the *November Report*, the MPC has maintained Bank Rate at 0.5%. And a 25 basis point increase in Bank Rate is not priced into overnight index swap rates until 2015 (Chart 1.1).

At its February meeting, the MPC voted to maintain its programme of asset purchases, financed by the issuance of central bank reserves, at £375 billion and to maintain Bank Rate at 0.5%. The reasons behind the MPC's recent policy decisions are discussed in more detail in the box on page 10. A Reuters poll of economists, conducted on 30 January, suggested that the median expectation was for no further asset purchases.

Monetary policy remains highly stimulative in most advanced economies, with policy rates remaining very low in the euro area, the United States and Japan. At its December meeting, the Federal Open Market Committee (FOMC) announced that it would continue purchasing agency mortgage-backed and longer-term Treasury securities, until it observed a substantial improvement in the outlook for the US labour market, subject to considerations of the costs and

Chart 1.1 Bank Rate and forward market interest rates^(a)



Sources: Bank of England and Bloomberg.

(a) The November 2012 and February 2013 curves are estimated using overnight index swap rates in the fifteen working days to 7 November 2012 and 6 February 2013 respectively.

Monetary policy since the November Report

The MPC's central projection in the November *Report*, under the assumptions that Bank Rate followed a path implied by market interest rates and that the stock of purchased assets financed by the issuance of central bank reserves remained at £375 billion, was for a sustained, but slow recovery in demand growth. Under the same assumptions, the MPC judged that CPI inflation was likely to remain a little above the 2% target for the first part of the forecast period, although the risks around the target were broadly balanced by the end of the forecast period.

At the time of the MPC's meeting on 5–6 December, the Committee noted that it was difficult to gauge the underlying state of the UK economy with precision though, on balance, the outlook for underlying output growth was broadly flat over the turn of the year. There had been mixed news from survey indicators of UK growth, and the Committee's view remained that the unexpectedly strong third-quarter GDP growth had incorporated large positive contributions from temporary factors, and that the unwinding of these would probably result in a contraction in headline GDP in 2012 Q4.

The twelve-month rate of CPI inflation had risen to 2.7% in October, which was higher than the Committee had anticipated, due in large part to unexpectedly large contributions from university tuition fees and food prices. Inflation was likely to remain above the target for the next year or so, owing in part to the continuing impact of the rise in tuition fees and higher domestic gas and electricity prices.

The Committee's central expectation remained that, in the medium term, inflation would fall back to the target, as the influence of past rises in energy and import prices faded and as a pickup in productivity attenuated domestic cost pressures. Substantial risks nevertheless remained around that central projection, including from higher food prices.

Against that backdrop, most members agreed that there had been little news on the month to alter the balance of arguments between maintaining and increasing the size of the monetary stimulus. Although growth remained subdued, the impact of the most recent round of asset purchases was still to be fully felt. For one member, the case for undertaking additional asset purchases at this meeting was nonetheless strong. Eight members voted to maintain the stock of asset purchases at £375 billion, while one member voted to increase the size of the asset purchase programme by a further £25 billion to a total of £400 billion. The Committee voted unanimously to maintain Bank Rate at 0.5%.

At the time of the MPC's meeting on 9–10 January, the Committee noted that it remained difficult to judge the

underlying strength of growth in the United Kingdom. Employment growth had stayed firm and revisions to official output data had suggested that, abstracting from the impact of one-off events, there had been modest growth in manufacturing and services output during the first three quarters of 2012. But indicators of output growth in Q4 had been mixed. Moreover, the unwind from the Olympic Games was expected to depress Q4 GDP growth significantly.

International developments had been, on balance, positive as some of the tail risks that had weighed on sentiment and activity appeared to have become less acute. Domestically, there had been some evidence that credit conditions were easing as lower bank funding costs began to pass through to lower loan rates and the Bank's *Credit Conditions Survey* had pointed to expectations of a further easing that could help support lending and demand over the course of the year. These developments were broadly in line with expectations of how the Funding for Lending Scheme would operate in its early stages. Substantial headwinds to recovery remained, however, including the drag to activity from fiscal consolidation, a further squeeze in household real incomes, and the deterioration in UK competitiveness over the past couple of years.

CPI inflation had remained at 2.7% in November, and there had been little news on the near-term outlook for inflation, which was judged likely to remain a little above the target over the rest of 2013. There was a risk that the prospect of continued above-target inflation could result in an erosion of the credibility of the monetary policy framework, which could affect wage and price-setting behaviour. Against that, growth remained subdued and the economy continued to face a number of headwinds that would squeeze real incomes. Moreover, there was likely to be some excess capacity and some members put weight on the possibility that output could be expanded without generating much additional inflationary pressure.

Most members judged that it was not necessary at this meeting to change policy in order to meet the inflation target in the medium term. For one member, the case for undertaking additional asset purchases was nonetheless strong. Eight members voted to maintain the stock of asset purchases at £375 billion, while one member voted to increase the size of the asset purchase programme by a further £25 billion to a total of £400 billion. The Committee voted unanimously to maintain Bank Rate at 0.5%.

At its meeting on 6–7 February, the Committee voted to maintain Bank Rate at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

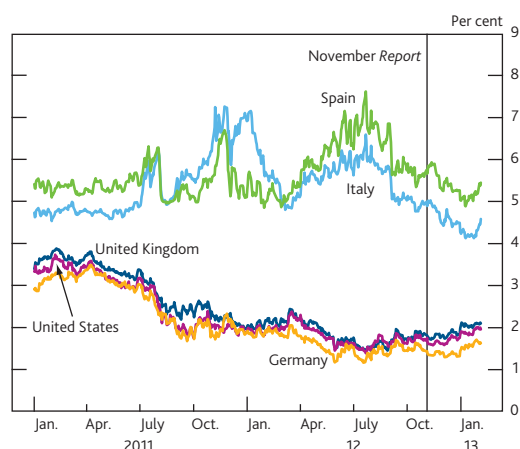
efficacy of such purchases. The FOMC made explicit the economic conditions under which it would consider raising its target interest rate. Also in December, the Bank of Japan announced further large-scale asset purchases, and in January, announced a move from a price stability goal of 1% inflation to an inflation target of 2%.

1.2 Financial markets

Over the past year, policymakers have not only maintained very stimulative monetary policy, but have also announced a range of other supportive measures. In September 2012, the European Central Bank (ECB) announced its willingness to use Outright Monetary Transactions to buy the short-term debt of euro-area countries that agree to receive official support.⁽¹⁾ In addition, at the start of 2013, agreement was reached to moderate the programmed fiscal contraction in the United States. And Japanese authorities put in place various measures aimed at boosting growth (Section 2).

In the United Kingdom, the Bank's £375 billion asset purchases, completed at the end of October 2012, have increased investors' money holdings and have helped to support demand for more risky assets. One way this occurs is through investors, who are holding fewer gilts as a result of the purchases by the Bank, rebalancing their portfolios by seeking to buy other assets.⁽²⁾ Indeed, the more generalised improvement in risk sentiment is likely to have boosted the effectiveness of this rebalancing channel. The FLS, which involves the creation of more UK Treasury bills, could have similar portfolio rebalancing effects if banks using the Scheme buy back, or issue less, longer-term debt.

Chart 1.2 Selected ten-year government bond yields^(a)



Source: Bloomberg.

(a) Yields to maturity on ten-year benchmark government bonds.

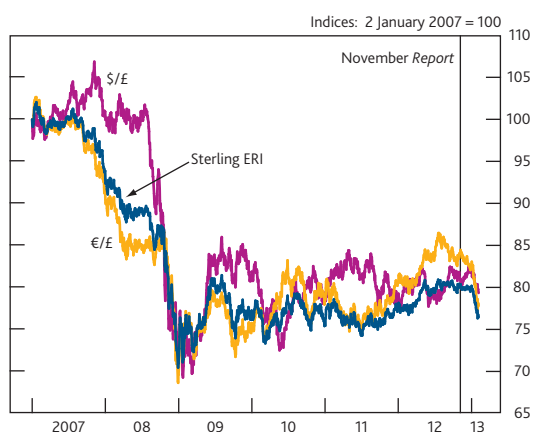
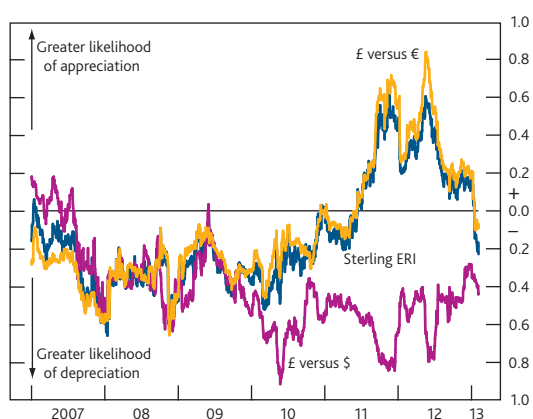
Euro-area government bonds

Continuing the trend started last summer, euro-area periphery sovereign debt yields have fallen further since the *November Report* (Chart 1.2), as the perceived risk of holding those assets receded. Stronger-than-expected investor demand at several euro-area periphery sovereign bond auctions in January provided further evidence of the improved risk outlook.

That said, euro-area periphery sovereign bond yields remain elevated relative to those on German government bonds (Chart 1.2). That reflects continuing concerns about the indebtedness and competitiveness of those countries (Section 2) — problems that the ECB's potential purchases of short-term sovereign debt are not able to solve. Indeed, yields on both Spanish and Italian bonds picked up a little in the

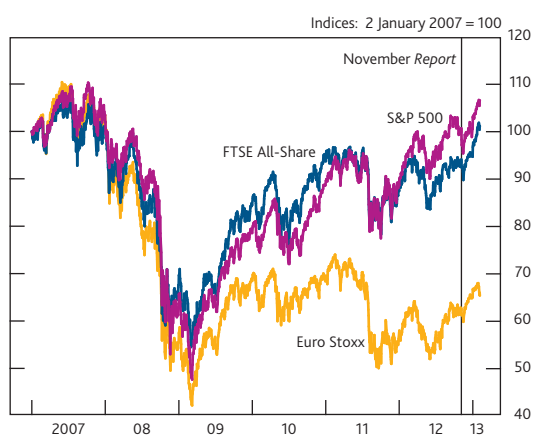
(1) For details see www.ecb.int/press/pr/date/2012/html/pr120906_1.en.html.

(2) The portfolio rebalancing effects of quantitative easing are discussed in more detail in Joyce, M, Tong, M and Woods, R (2011), 'The United Kingdom's quantitative easing policy: design, operation and impact', *Bank of England Quarterly Bulletin*, Vol. 51, No. 3, pages 200–12.

Chart 1.3 Sterling exchange rates**Chart 1.4** Option-implied asymmetries for selected exchange rates^(a)

Sources: Bloomberg, British Bankers' Association and Bank calculations.

(a) Three-month measure. Option-implied asymmetries are measured by the skewness of the distribution of three-month foreign exchange returns implied by options price data. Returns are defined as the logarithmic difference between current forward rates and the spot rate.

Chart 1.5 International equity prices^(a)

Source: Thomson Reuters Datastream.

(a) In local currency terms.

weeks immediately prior to the February *Report*, reflecting renewed political uncertainty in those countries.

UK government bonds

Ten-year gilt yields have risen by around 20 basis points since the November *Report*, although they remain close to historic lows (**Chart 1.2**). Some of the recent rise is likely to reflect the further reduction in investor risk perceptions; gilts are generally viewed as safe-haven assets, and so become relatively less attractive to investors when risks lessen. Market contacts also report that investors are beginning to focus on the prospects of a UK credit rating downgrade, and that this possibility is already reflected in gilt prices to an extent.

Gilt yields were not materially affected by the UK Government announcement regarding the transfer of coupon payments from the Bank's Asset Purchase Facility (APF) on 9 November 2012, or by the details of planned debt issuance released on 5 December as part of the Government's Autumn Statement.⁽¹⁾ The Autumn Statement did, however, contain news of a Government consultation covering pension fund deficit calculations, which investors interpreted as likely to reduce pension companies' demand for longer-term gilts. Following this news, yields on gilts with maturities longer than ten years rose by around 10 basis points.

On 10 January, the National Statistician announced the outcome of a consultation on options for improving the retail prices index. Uncertainty about the outcome of this affected the decomposition of nominal gilt yields into real and breakeven inflation components (Section 4).

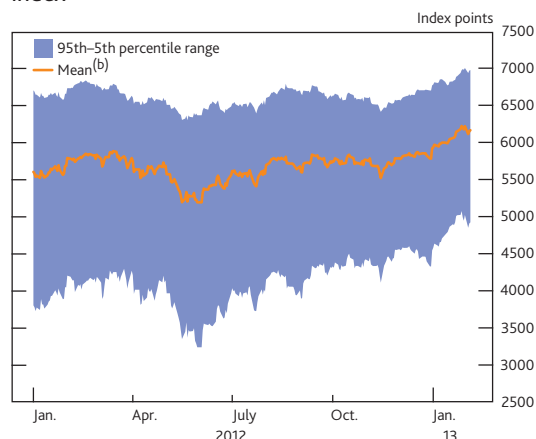
Exchange rates

The sterling effective exchange rate was 3.3% lower in the run-up to the February *Report* than was the case three months earlier (**Chart 1.3**). The move primarily reflected a fall against the euro, and was probably largely related to the perceived amelioration of near-term risks in the euro area and elsewhere. Since January, however, sterling has also depreciated against a broader range of currencies, with financial market participants citing sterling-specific explanations, such as weaker-than-expected data on UK growth. Nevertheless, the sterling ERI remains around 1% higher than its 2011 average.

Information derived from option prices suggests that investors' views on the outlook for sterling have shifted materially since the turn of the year, and that, relative to the recent past, they place more weight on the possibility of a further depreciation than on an appreciation (**Chart 1.4**).

(1) For details on changes to APF cash management arrangements see www.hm-treasury.gov.uk/press_109_12.htm. For the Chancellor's Autumn Statement see www.hm-treasury.gov.uk/as2012_index.htm.

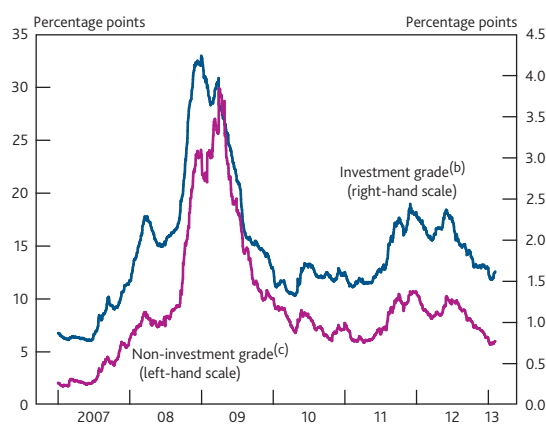
Chart 1.6 Option-implied distributions for the FTSE 100 index^(a)



Sources: Bloomberg, NYSE Euronext and Bank calculations.

- (a) Six-month measure.
(b) Six-month futures price.

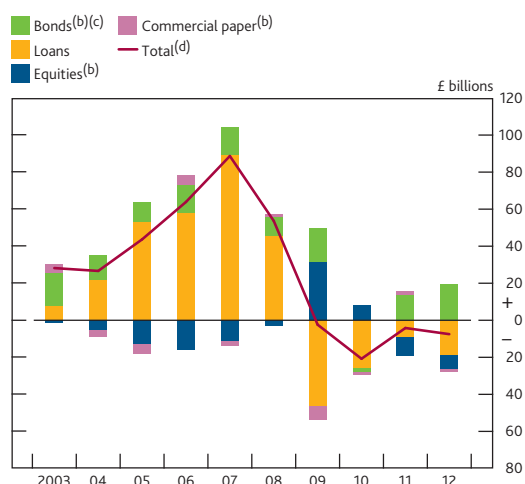
Chart 1.7 Non-financial companies' sterling corporate bond spreads^(a)



Source: Bank of America Merrill Lynch.

- (a) Excludes utility companies. Option-adjusted spreads over equivalent-maturity government bonds.
(b) Aggregate index of bonds with a composite rating of BBB3 or higher.
(c) Aggregate index of bonds with a composite rating lower than BBB3.

Chart 1.8 PNFCs' net external finance raised^(a)



- (a) Includes sterling and foreign currency funds.
(b) Non seasonally adjusted.
(c) Includes stand-alone and programme bonds.
(d) The total may not equal the sum of its components as some components are non seasonally adjusted.

Equities and corporate bonds

Equity prices have risen markedly since the *November Report*, continuing the broad upward trend since June 2012 (**Chart 1.5**). Much of the rise since the summer appears to reflect greater investor willingness to hold risky assets, supported by policy, rather than a revision to earnings forecasts. Although it remains higher than before the crisis, the compensation investors require to take equity risk — the equity risk premium — therefore appears to have fallen. This is corroborated by information from equity options prices. The lower tail of the option-implied distribution of equity prices has risen across major indices, which suggests that the value that investors place on insuring themselves against large price falls has declined (**Chart 1.6**).

The evolution in investor attitudes to risk over recent months is also evident in other financial markets, including the corporate bond market. Since the *November Report*, non-financial corporate bond spreads have continued to fall (**Chart 1.7**). Meanwhile, the Bank's Corporate Bond Secondary Market Scheme has been a net seller of bonds, another indication of strong investor demand.⁽¹⁾ Lower bond spreads are likely to have encouraged companies to issue more debt. In net terms (that is, taking account of debt being repaid), corporates issued more debt in 2012 than they had in any year since 2003 (**Chart 1.8**). Total net external finance raised by companies was negative in 2012, however, as the rise in bond issuance was more than offset by net repayments of equity and bank loans (Section 1.3).

1.3 The banking sector and credit conditions

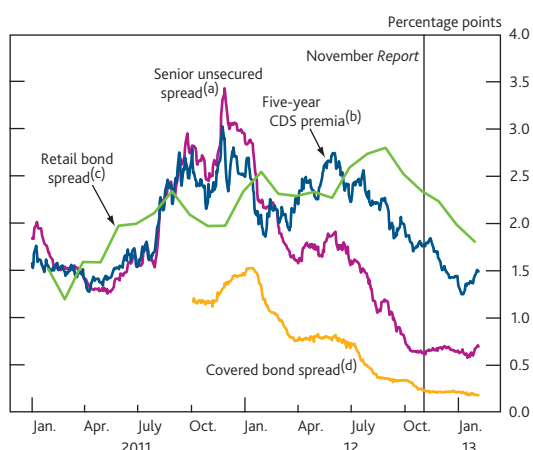
The cost and availability of bank credit depends, in part, on conditions in bank funding markets. The FLS, together with the general improvement in financial markets, has led to lower bank funding costs since the summer. But the key issue remains the extent to which these falls feed through to private sector credit conditions and support credit growth.

Operation of the FLS

The FLS provides a cheap source of funding for participating banks and provides incentives for them to increase net lending to the UK real economy.⁽²⁾ As at 4 February, 39 lenders had signed up to the Scheme, covering just over 80% of the stock of loans to the real economy. Lenders have also started to access the Scheme: as at 30 September 2012, £4.4 billion had been drawn. Based on conversations with FLS participants — and as expected given the early stage in the Scheme's operation — this figure represents a small fraction of the likely eventual usage.

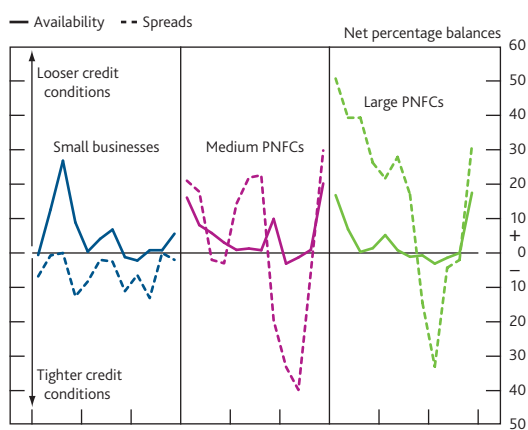
(1) For details on the Bank's Corporate Bond Secondary Market Scheme see www.bankofengland.co.uk/markets/Pages/apf/corporatebond/default.aspx.

(2) For a detailed description of how the Scheme works and how it aims to provide additional stimulus to the economy, see Churm, R, Leake, J, Radia, A, Srinivasan, S and Whisker, R (2012), 'The Funding for Lending Scheme', *Bank of England Quarterly Bulletin*, Vol. 52, No. 4, pages 306–20.

Chart 1.9 UK banks' indicative longer-term funding spreads

Sources: Bank of England, Bloomberg, Markit Group Limited and Bank calculations.

- (a) The data show a simple average of the spread between euro-denominated senior unsecured bonds and equivalent-maturity swap rates for a selected bond issued by each of the major UK lenders. The selected bonds have residual maturities of between two and six years.
- (b) The data show a simple average of the five-year CDS premia of major UK lenders.
- (c) Sterling only. Spread over the three-year swap rate. The three-year retail bond rate is a weighted average of rates from banks and building societies within the Bank of England's normal quoted rate sample with products meeting the specific criteria (see www.bankofengland.co.uk/statistics/Pages/iadb/notesiadb/household_int.aspx).
- (d) The data show a simple average of the spread between euro-denominated covered bonds and equivalent-maturity swap rates for a selected bond issued by each of the major UK lenders. The selected bonds have residual maturities of between three and seven years.

Chart 1.10 Credit Conditions Survey: changes in corporate credit availability and spreads by size^(a)

- (a) Weighted responses of lenders. A positive (negative) balance indicates that more (less) credit was available or that spreads over reference rates had fallen (risen) over the past three months.

Table 1.A Deloitte CFO Survey: views on credit

Net percentage balances

	Averages		2012			
	2010	2011	Q1	Q2	Q3	Q4
Attractiveness of bank borrowing ^(a)	23	36	25	30	35	41
Attractiveness of corporate bonds ^(a)	40	46	41	38	56	72
Expected demand for credit over the next year ^(b)	23	25	19	13	13	28
Overall availability of new credit ^(c)	1	15	18	-3	20	32
Overall cost of new credit ^(d)	-33	-10	-5	6	12	43

Source: Deloitte.

- (a) Percentage of respondents who thought that the source of funding was attractive less the percentage who thought that it was unattractive.
- (b) Percentage of respondents who expected their demand for credit to increase less the percentage who expected it to decrease.
- (c) Percentage of respondents who thought that credit was available less the percentage who thought that it was unavailable.
- (d) Percentage of respondents who thought that credit was not costly less the percentage who thought that it was costly.

According to 2012 Q3 data, FLS members had, in aggregate increased net lending by £0.5 billion. But it will take time for the Scheme to feed through into material increases in lending. As an aim of the Scheme is to encourage lenders to extend more loans than they otherwise would have done, and given that some banks had planned to reduce lending, the absolute flow of lending is not in itself a good indicator of the effectiveness of the Scheme (see the box on pages 14–15 of the August 2012 *Report*). That said, it is anticipated that the Scheme, together with the more general improvement in financial market conditions, will have a more material impact on lending through the first half of this year. And overall, as summarised in the box on page 17, the Scheme's impact to date has been largely as anticipated by the MPC at the time of the November *Report*, although credit conditions have improved less quickly than anticipated in August when the FLS started.

The rest of this subsection considers bank funding costs and credit conditions for households and businesses.

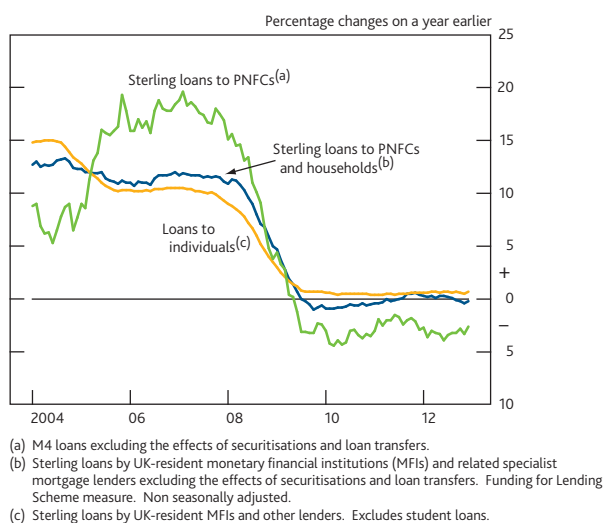
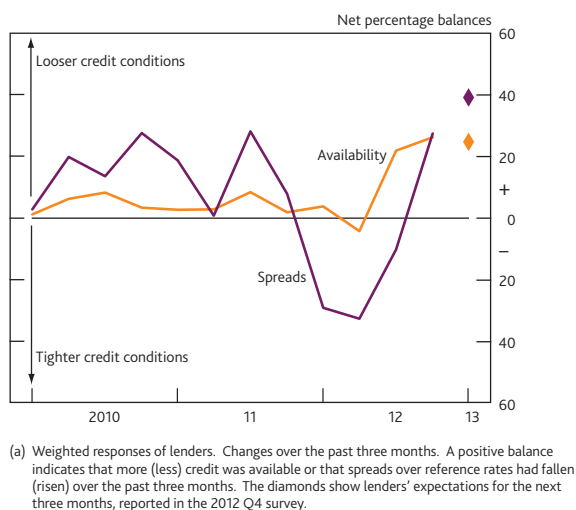
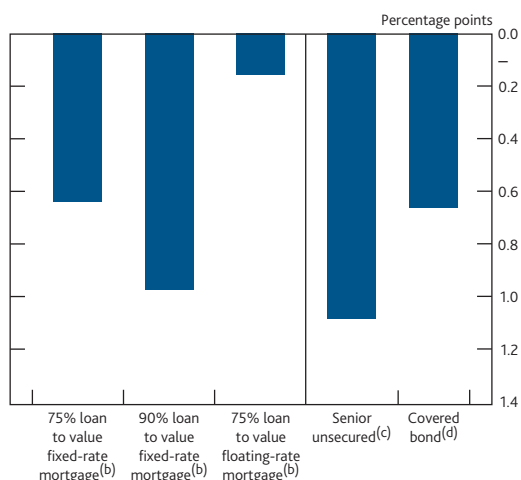
Bank funding conditions

Some indicative measures of UK banks' funding spreads have fallen further since the November *Report* (Chart 1.9). Credit default swap (CDS) premia — a proxy for the credit risk component of bank funding costs — fell. Having fallen materially since the start of 2012, senior unsecured and covered bond spreads flattened off. The reduction in long-term retail deposit rates is a by-product of these more favourable bank funding conditions.

According to market contacts, one factor reducing funding costs in public markets is the limited supply of UK bank debt, relative to investor demand. And many lenders say that they plan to issue less public market debt this year than in 2012. In part, the anticipated lower bank issuance reflects some lenders reducing the size of their balance sheets and increasing their reliance on retail funding. But it also reflects banks planning to use the FLS to meet a portion of their funding needs. The extent to which FLS funding is cheaper than other sources of funds varies by bank, however, and has fallen over recent months as market funding costs have come down.

Funding costs are a key influence on the supply of bank credit. But credit supply is also affected by the quality of banks' assets and the size of their balance sheets relative to their capital. At its November meeting, the Bank's Financial Policy Committee (FPC) recommended that the Financial Services Authority takes action to ensure that the capital positions of UK banks and building societies are prudently stated and, where necessary, to ensure that firms either raise capital or else restructure their balance sheets in ways that do not hinder lending to the real economy.⁽¹⁾

(1) For more details on the FPC's recommendation, see the November 2012 *Financial Stability Report*.

Chart 1.11 Loans to PNFCs and households**Chart 1.12** Credit Conditions Survey: changes in availability of and spreads on secured loans to households^(a)**Chart 1.13** Changes in average quoted new mortgage rates and indicative UK bank funding costs since June 2012^(a)

Sources: Bank of England, Bloomberg and Bank calculations.

- (a) Change between 30 June 2012 and 31 January 2013.
 (b) Two-year mortgages.
 (c) The data show a sum of the five-year swap rate and an indicative average of UK banks' senior unsecured bond spreads as defined in footnote (a) to Chart 1.9.
 (d) The data show the sum of the five-year swap rate and an indicative average of UK banks' covered bond spreads as defined in footnote (d) to Chart 1.9.

On 6 January, the Basel Committee on Banking Supervision announced changes to the Liquidity Coverage Ratio — the international standard governing the quantity and types of assets that banks are required to hold for liquidity insurance purposes. The changes, which included an expanded definition of high-quality liquid assets, and a longer implementation timeline, were seen by market participants as likely to reduce the cost of meeting liquidity requirements. Bank equity prices subsequently rose a little. Depending on how the revisions affect UK liquidity rules, banks are likely to hold fewer liquid assets. This could, at the margin, boost their willingness to lend to the real economy.

Bank lending to companies

There appears to have been some increase in the quantity of credit that banks are willing to supply to businesses, as well as some reduction in the associated loan rates. Evidence from the Bank's 2012 Q4 *Credit Conditions Survey* (CCS), together with indications from business surveys, suggests that credit availability has increased for companies of all sizes, albeit by less for small businesses (Chart 1.10). This is corroborated by reports from the Bank's Agents for larger businesses, although they note that credit conditions for small businesses were little changed. Responses to the CCS also suggested that banks intended to reduce the cost of credit further for medium-sized and large companies in 2013 Q1.

For the increase in credit supply to result in higher lending, demand for bank credit will have to rise. Over recent years, this demand appears to have been, in aggregate, subdued. Since the start of 2009, companies have been shifting their sources of external finance away from bank loans (Chart 1.8). And recent reports from the Bank's Agents suggest that some companies continue to pay down bank debt, while the demand for new bank credit among many companies remains muted. According to the latest *Deloitte CFO Survey* of large corporates, demand for credit from external sources is expected to increase somewhat in 2013. But that may not be reflected in bank borrowing: on balance, bond finance was rated as a relatively more attractive source of external finance (Table 1.A).

The combination of the tight supply of, and the weak demand for, bank credit was reflected in a continued fall in the stock of bank loans to private non-financial corporations (PNFCs) in the twelve months to December 2012 (Chart 1.11). Although likely to remain subdued, the flow of lending to companies may be less weak in 2013 (Section 5).

Bank lending to households and the housing market

Secured credit conditions facing households have also become more favourable since the November *Report*. Lenders reported in the CCS that they had increased the availability of household credit in 2012 Q4, and they expected a further improvement in availability in 2013 Q1 (Chart 1.12). 2012 Q4

Table 1.B Housing market indicators

	Averages since 2000(a)(b)	2011 ^(a)	2012			
			H1 ^(a)	Q3 ^(a)	Q4 ^(a)	
Activity						
Property transactions (000s) ^(c)	95	74	78	76	79	
Mortgage approvals (000s) ^(d)	85	49	51	49	54	
RICS sales to stocks ratio ^(e)	0.35	0.21	0.23	0.23	0.24	
Average monthly changes						
	Change	2011	2012			2013
	2007 Q4–2012 Q4		H1	Q3	Q4	Jan.
Prices ^(f)						
Halifax	-17.9	-0.2	0.3	-0.5	0.8	-0.2
Nationwide	-11.2	0.1	-0.2	0.0	0.2	0.5

Sources: Bank of England, Halifax, HM Revenue and Customs, Land Registry, Nationwide, ONS, Royal Institution of Chartered Surveyors (RICS) and Bank calculations.

(a) Averages of monthly data.

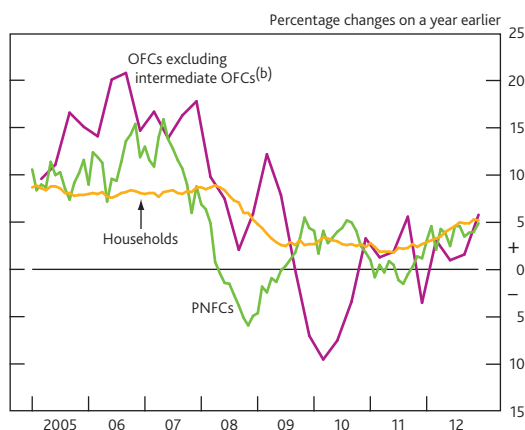
(b) Except for property transactions, which is an average since April 2005.

(c) Number of residential property transactions with value £40,000 or above.

(d) Loan approvals for house purchase.

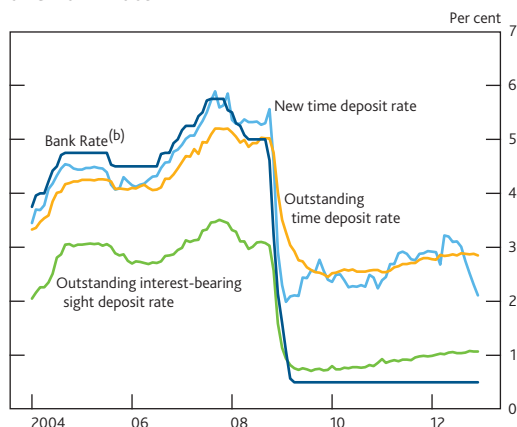
(e) Ratio of sales recorded over the past three months to the level of stock on estate agents' books at the end of the month.

(f) Percentage changes.

Chart 1.14 Sectoral broad money(a)

(a) Monthly data unless otherwise specified.

(b) Quarterly data. Intermediate other financial corporations (OFCs) are: mortgage and housing credit corporations; non-bank credit grantors; bank holding companies; securitisation special purpose vehicles; and other activities auxiliary to financial intermediation. In addition to the deposits of these five types of OFCs, sterling deposits arising from transactions between banks or building societies and 'other financial intermediaries' belonging to the same financial group are excluded from this measure of broad money.

Chart 1.15 Household effective deposit interest rates and Bank Rate(a)

(a) Monthly average of UK-resident MFIs' sterling household deposit rates. The Bank's effective interest rate series are compiled using data from 24 UK MFIs.

(b) Monthly average.

CCS responses also indicated that secured credit availability had increased for both high and low loan to value mortgage customers, which should broaden the pool of households with access to credit.

Interest rates on many secured and unsecured loans have continued to fall. For example, average quoted fixed-rate mortgage rates have fallen by between around 65 and 95 basis points since the end of June. But some of the falls have been smaller than the corresponding declines in bank funding costs, particularly for floating mortgage rates, which are only a little lower (**Chart 1.13**). Even absent further falls in funding costs, average quoted household loan rates are likely to fall further. Indeed, respondents to the CCS expect to reduce loan spreads in 2013 Q1 (**Chart 1.12**).

Mortgage approvals are one indicator of the response of household credit demand to lower mortgage rates and greater credit availability. As anticipated at the time of the *November Report*, these have picked up, but they remain well below pre-recession levels (**Table 1.B**). Other indicators of housing market activity also remained subdued, though house prices, on average, rose slightly in 2012 Q4. Further rises in mortgage approvals are expected over the coming months and would be in line with the expectation that lower bank funding costs and incentives provided by the FLS will generate stronger net lending in 2013, following several years of stagnation (**Chart 1.11**).

1.4 Money

Four-quarter growth in broad money was higher than in recent years in 2012 Q4, though well below pre-recession rates across all sectors (**Chart 1.14**). Money growth was boosted in 2012 Q3, and to a lesser extent Q4, by the MPC's most recent round of asset purchases, which started in July 2012 and finished at the end of October. Other things equal, aggregate money growth, therefore, could fall back in 2013 Q1.

Household deposits continue to account for the bulk of the recent strength in money growth, although PNFC deposit growth has also increased. The rise in household balances may be a result of the proceeds from past MPC asset purchases feeding into household money. That could occur, for example, as individuals receive, or withdraw, cash from investments with non-bank financial intermediaries, such as retail fund managers.

In recent months, flows into household sight deposits — accounts typically used for transactions purposes — have been a key contributory factor to the strength in household money. This may signal that households intend to increase spending. But the recent fall in the interest rates banks pay on longer-term savings products (**Chart 1.15**) may mean that households view sight and time deposits as closer substitutes than in the past. The near-term outlook for household spending is discussed in Section 2.

Summary of indicators of FLS transmission

The generalised improvement in UK bank funding markets, aided by the Funding for Lending Scheme (FLS), should act to support an improvement in credit conditions. The MPC is monitoring data from a range of sources to help to assess the extent to which conditions are improving (see pages 14–15 of the *November Report*). This box summarises developments in

these indicators so far, which suggests that conditions are improving at a similar pace to that envisaged at the time of the *November Report*, although they have improved less quickly than anticipated in August when the FLS started. The box also sets out what these indicators are expected to show as 2013 progresses.

	Recent developments	In line with expectations?	Anticipated as the year progresses, should the Scheme work as expected
Stage 1 Bank funding costs	Continued falls in indicators of bank funding costs — for example, average UK bank five-year CDS premia have fallen by 35 basis points since the <i>November Report</i> , and by around 90 basis points since the end of June (Chart 1.9).	Broadly in line.	Bank funding costs are expected to drift down a little further in 2013. In the event of any deterioration in public funding market conditions, the FLS should act as an effective backstop.
Stage 2 Quoted terms and credit availability	Evidence of lower spreads on loans to larger corporates and better credit availability (Chart 1.10); improvements less marked for small businesses. Average quoted two-year fixed-rate mortgage rates down between around 40 and 90 basis points since early November, and between around 65 and 95 basis points since end-June (Chart 1.13). Quoted floating mortgage rates little changed. Increase in secured credit availability for high and low loan to value borrowers in the <i>Credit Conditions Survey</i> .	Broadly in line.	Further reductions in household and corporate loan rates are expected. Lenders expect lower spreads and greater availability in Q1 for both households and larger companies, according to the <i>Credit Conditions Survey</i> .
Stage 3 Loan applications and approvals	Business surveys suggest a modest increase in large companies' appetite for borrowing (Table 1.A); little sign of small companies' applications rising. The Bank's Agents report that demand for bank borrowing remains muted. Mortgage approvals rose in Q4 (Table 1.B).	Broadly in line, although approvals rose a little more than expected.	Business survey evidence that small and medium-sized enterprises are more willing to apply for and are able to get loans. Rise in mortgage approvals to continue.
Stage 4 The flow of credit and effective rates	Lending to businesses and households remains weak (Chart 1.11).	Too soon to say.	Expect to see gradual improvement through the first half of this year.

2 Demand

Looking through quarter-to-quarter volatility, demand in the year to 2012 Q3 was broadly flat. Within that, business investment grew relatively firmly. But growth in households' spending remained muted, reflecting a higher rate of savings. Fiscal consolidation continued to weigh on growth. The picture for the rest of the world was mixed. The recovery has continued in some economies, such as the United States, but euro-area activity remained weak. UK export growth continued to disappoint over 2012.

Table 2.A Expenditure components of demand^(a)

Percentage changes on a quarter earlier

	Averages		2012		
	1998–2007	2008–11	Q1	Q2	Q3
Household consumption ^(b)	0.9	-0.4	0.5	0.4	0.3
Private sector investment	1.1	-1.4	-1.0	1.0	-1.9
<i>of which, business investment</i>	1.1	-0.8	-2.7	1.4	3.8
<i>of which, private sector dwellings investment</i>	1.6	-2.1	2.7	0.1	-13.8
Private sector final domestic demand	0.9	-0.5	0.2	0.5	-0.1
Government consumption and investment ^(c)	0.8	0.1	3.8	-1.8	1.5
Final domestic demand	0.9	-0.4	1.1	-0.1	0.3
Change in inventories ^{(d)(e)}	0.0	0.0	-0.4	0.6	0.0
Alignment adjustment ^(e)	0.0	0.0	-0.4	0.1	0.1
Domestic demand	0.9	-0.4	0.3	0.6	0.4
'Economic' exports ^(f)	1.1	0.3	-1.7	-1.0	1.2
'Economic' imports ^(f)	1.4	-0.3	-0.1	1.8	-0.4
Net trade ^{(e)(f)}	-0.1	0.2	-0.5	-0.9	0.5
Real GDP at market prices	0.8	-0.2	-0.2	-0.4	0.9

(a) Chained-volume measures.

(b) Includes non-profit institutions serving households.

(c) Government investment data have been adjusted by Bank staff to take account of the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2.

(d) Excludes the alignment adjustment.

(e) Percentage point contributions to quarterly growth of real GDP.

(f) Excluding the impact of missing trader intra-community (MTIC) fraud. Official MTIC-adjusted data are not available for exports, so the headline exports data have been adjusted for MTIC fraud by an amount equal to the ONS import adjustment.

Looking through quarterly volatility, demand was broadly flat in the year to 2012 Q3, with the economy still adjusting to the repercussions of the financial crisis. In terms of domestic demand (**Table 2.A**), weak consumer spending growth contrasts with relatively firm growth in business investment (Section 2.1). Export growth was fairly weak, reflecting both euro-area developments and UK-specific factors (Section 2.2).

Nominal spending growth was subdued. Four-quarter nominal GDP growth was only around 2% in 2012 Q3 (**Chart 2.1**), compared with a pre-recession average of around 5%.

2.1 Domestic demand

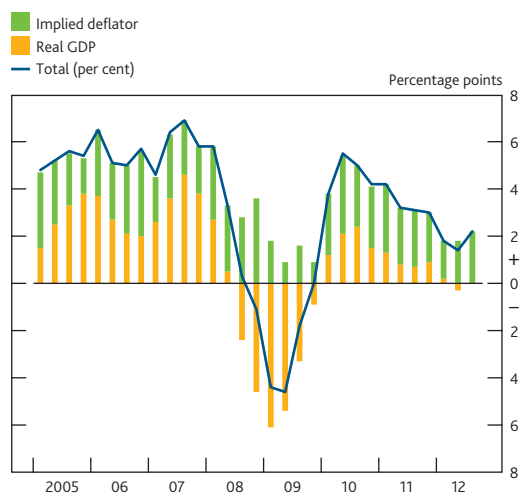
Household spending

Consumer spending expanded gradually over the first three quarters of 2012 (**Table 2.A**). But the pattern of spending was distorted by one-off events. For example, ticket sales for the Olympics raised consumption growth in Q3, and will have reduced growth by a corresponding amount in Q4 (Section 3). After stripping out the effects of the Olympics, consumer spending is likely to have been flat in Q3 and have fallen in Q4. But it is expected to pick up slightly in Q1.

Relative to previous recoveries, consumer spending remains weak (**Chart 2.2**). The peak-to-trough fall in consumption was larger during this recession than previous ones, and the recovery has been more subdued. At this stage in previous recoveries, consumer spending had surpassed its pre-recession peak; in the current recovery, it remains some 4% below that level.

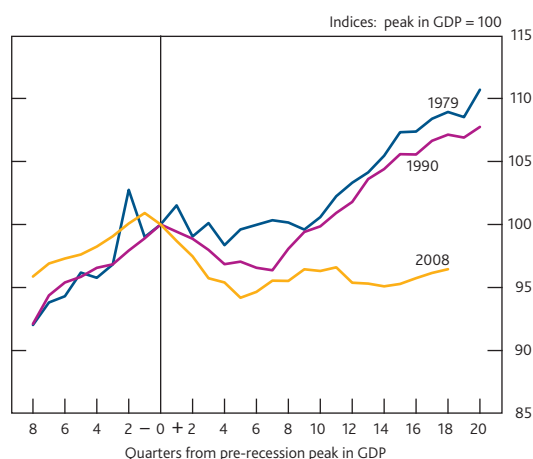
One reason for subdued growth in consumer spending has been weak real income growth (**Chart 2.3**). In particular, household income growth weakened at the end of 2010, squeezed by higher VAT, import and energy prices. Since the end of 2011, household real income growth has picked up a little, reflecting both stronger employment growth (Section 3)

Chart 2.1 Contributions to four-quarter growth in nominal GDP^(a)



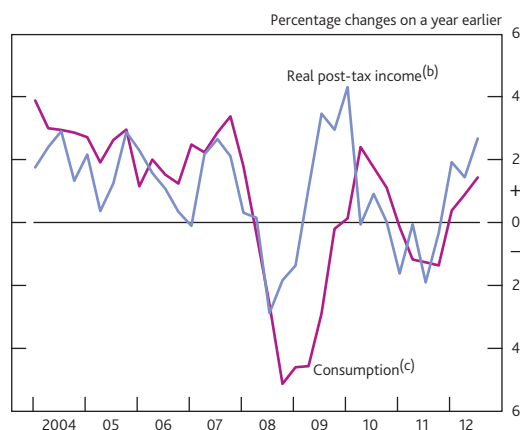
(a) At market prices. Contributions may not sum to total due to rounding.

Chart 2.2 Level of consumption compared with previous recessions^(a)



(a) Chained-volume measures. Includes non-profit institutions serving households. Recessions are defined as at least two consecutive quarters of falling output (at constant market prices), estimated using the latest data.

Chart 2.3 Household consumption and real income^(a)



(a) Includes non-profit institutions serving households.
(b) Total available household resources, deflated by the consumer expenditure deflator.
(c) Chained-volume measure.

and an easing in inflation. That said, recent rises in utility bills (Section 4) and the fall in sterling (Section 1) will put some renewed downward pressure on real income in the near term.

The recovery in household income growth was accompanied by a gentle rise in spending (Chart 2.3). But not all of the increase in income was spent: households also increased the proportion of their income that they saved (Chart 2.4). Movements in the saving ratio since 2010 have been consistent with households saving less when income was weak, and then taking advantage of higher income to bolster their balance sheets. More generally, the saving ratio remains higher than before the crisis.

Several factors have encouraged households to save more than they did before the crisis. Households' saving in part depends on their expectations about future income, which will have been adversely affected by the financial crisis: some households will have responded by increasing saving to smooth consumption over time. Moreover, some households will have wanted to increase their savings in response to heightened uncertainty about future employment and earnings. This may have been particularly the case for highly indebted households. The fiscal consolidation has probably added to the sense of uncertainty, in particular for public sector employees.

Tighter credit conditions will also have constrained some households' spending. But, recently, the take-up of finance for durable goods purchase has increased. For example, the Finance and Leasing Association reported a marked pickup in the take-up of finance for car purchase during the first three quarters of 2012. Indeed, purchases of cars accounted for over half of total household spending growth over the four quarters to Q3. More generally, the recent falls in loan rates and increased availability of credit should help to support consumer spending. Section 5 discusses the medium-term outlook for household spending.

Dwellings investment

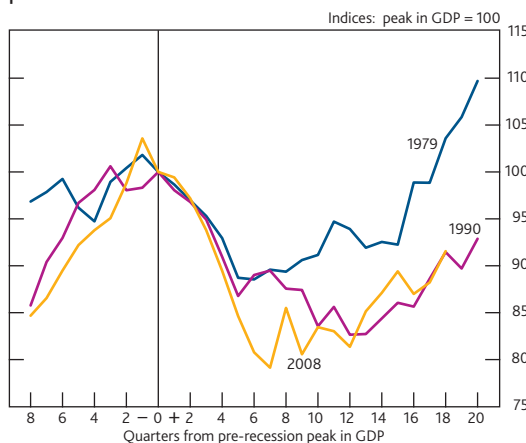
Private sector dwellings investment, which includes not only new building, but also improvements and the costs associated with buying a property, fell sharply in 2012 Q3 (Table 2.A). The data are volatile, but even before the recent fall, dwellings investment was substantially below its pre-recession peak. Indicators suggest little change in investment in the near term: completions of new buildings remained weak in Q3, although housing transactions picked up modestly in Q4. But some Agents' contacts expect that improved credit conditions, and in particular better access to mortgages, will support a recovery in investment further ahead.

Business spending

Business investment has recovered along a path similar to that of the 1990s recession (Chart 2.5). Given the sluggish

Chart 2.4 Household saving ratio^(a)

(a) Percentage of household post-tax income.
(b) Recessions are defined as in footnote (a) of Chart 2.2. The recessions are assumed to end once output began to rise.

Chart 2.5 Level of business investment compared with previous recessions^(a)

(a) Chained-volume measures. The current vintage of business investment data is not available prior to 1997 Q1. Business investment prior to that date has been assumed to grow in line with the series in the 2011 Q1 National Accounts data set. Recessions are defined as in footnote (a) of Chart 2.2.

Table 2.B Business investment and surveys of investment intentions

	Averages			2012			
	1999–2007	2008–10	2011	Q1	Q2	Q3	Q4
Business investment^(a)							
Percentage change on a quarter earlier	0.7	-1.8	1.9	-2.7	1.4	3.8	n.a.
of which, contribution from utilities and extraction industries ^(b)	0.3	-0.7	1.0	4.6	0.6	2.7	n.a.
Investment intentions^(c)							
Agents' scores ^(d)	1.5	-0.7	1.4	0.8	0.8	0.4	0.6
BCC ^(e)	14	-6	5	10	8	5	8
CBI ^(f)	-8	-21	-2	-8	-4	-14	-7

Sources: Bank of England, BCC, CBI, CBI/PwC and ONS.

- (a) Chained-volume measures.
(b) Utilities and extraction investment was 21% of total business investment in 2009.
(c) Sectoral surveys weighted using shares in real business investment.
(d) End-quarter observations on a scale of -5 to +5, with positive scores indicating an increase in investment over the next twelve months. Data cover the manufacturing and services sectors.
(e) Net percentage balance of respondents reporting that they have increased planned investment in plant and machinery over the past three months. Data are non seasonally adjusted and cover the non-services and services sectors.
(f) Net percentage balance of respondents reporting that they expect to increase investment in plant and machinery over the next twelve months. Data cover the manufacturing, financial services, consumer/business services and distribution sectors.

recovery in GDP growth, investment has been reasonably robust.

In the early part of the recovery, investment growth was broadly based across sectors. In recent quarters, however, much of the strength in business investment growth has been accounted for by just two sectors: utilities, and mining and quarrying (**Table 2.B**). Investment growth elsewhere has been fairly muted.

Recent growth in investment may have been supported by an increase in capacity pressures (Section 3). An Agents' survey taken towards the end of 2012 suggested that those businesses that were investing were not just replacing equipment, but had also been expanding capacity (**Chart 2.6**). This contrasts with the results of a similar survey in 2010, when many respondents suggested that plentiful capacity was restraining investment.

The latest Agents' survey also suggested that uncertainty over the demand outlook is still holding investment back, in line with results from CBI surveys. Access to finance is reported to be less of a constraint on investment than the uncertain demand outlook. That could be because some larger companies have access to capital markets, and, for others, finance may only become a binding factor once they decide to invest. Moreover, it appears that the corporate sector, in aggregate, has a large financial surplus, although the implications of that for investment will depend on which companies have accumulated assets and for what purpose.⁽¹⁾

Overall, surveys of investment intentions — which primarily capture companies in the non-energy sector — remained at or below their pre-crisis average, but picked up on the previous quarter (**Table 2.B**). That is consistent with moderate growth in business investment in the near term.

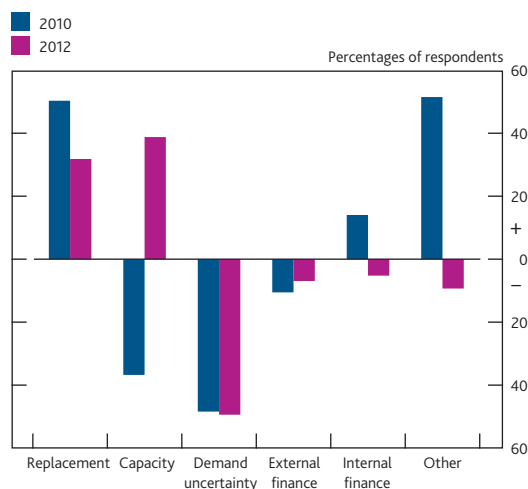
Government spending

A substantial fiscal consolidation is under way. The fiscal deficit continued to narrow during the past year, with public sector net borrowing averaging 6.3% of GDP in the four quarters to 2012 Q3. Based on the Government's latest fiscal plans, the Office for Budget Responsibility revised its projection for national debt as a share of GDP. The debt to GDP ratio is forecast to continue to increase from 75% in fiscal year 2012/13, and to start falling by fiscal year 2016/17, one year later than previously planned.

Just over a third of the Government's planned consolidation has taken place so far. **Chart 2.7** shows the composition of fiscal tightening to date, and the currently planned consolidation over forthcoming fiscal years, relative to the fiscal plans set out in the 2008 *Budget*. Based on current

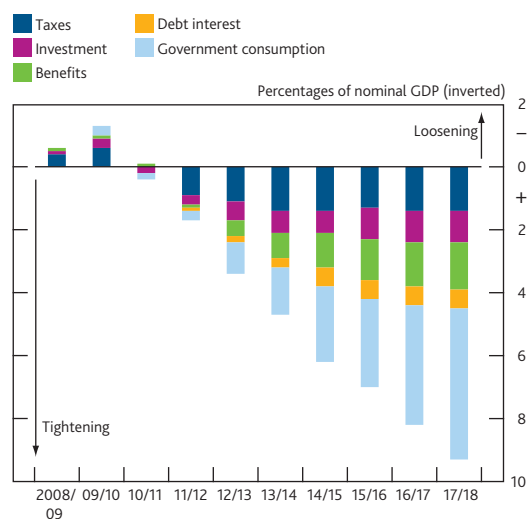
(1) For more detail, see the box on pages 24–25 of the August 2012 *Report*.

Chart 2.6 Agents' survey: key drivers of business investment decisions^(a)



(a) The balances show the proportion of companies, weighted by turnover, indicating whether each factor is pushing down, boosting or has no impact on capital expenditure decisions over the next twelve months. Respondents could select more than one option. The 2010 survey was based on 283 respondents and was carried out between 8 October and 20 October 2010. The 2012 survey was based on 439 respondents and was carried out between 15 October and 21 November 2012.

Chart 2.7 Composition of the fiscal consolidation^(a)



Sources: HM Treasury, Institute for Fiscal Studies *Green Budget 2013* and Office for Budget Responsibility.

(a) Bars represent the planned fiscal tightening (reduction in government borrowing) relative to the March 2008 *Budget*, decomposed into tax increases and spending cuts, with the spending cuts further subdivided into benefit cuts, other current spending cuts and investment spending cuts. The calculations are based on all HM Treasury Budgets, Pre-Budget Reports and Autumn Statements between March 2008 and December 2012.

plans, most of the tax increases have taken place, whereas most of the spending cuts are yet to come.

Although it is difficult to know what would have happened to output in its absence, the fiscal consolidation is likely to have weighed on output over the past three years and to continue to do so. Higher taxes and lower benefits weigh on output indirectly, for example, through their impact on households' real income. And lower government investment and consumption both reduce activity directly. That said, real government consumption growth as measured by the ONS has not been particularly weak to date, as a good part of the volume of government spending reflects movements in output indicators, such as the number of pupils taught, rather than the amounts spent.⁽¹⁾

2.2 External demand and UK trade

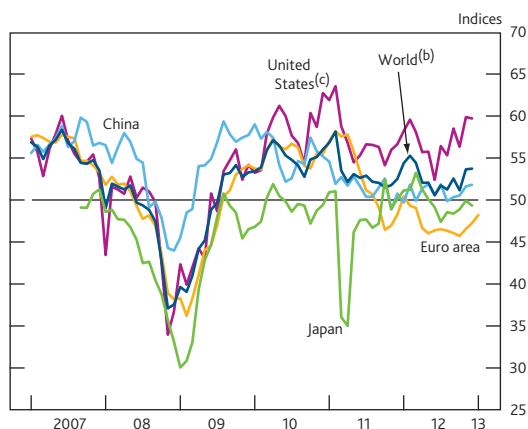
Global output expanded moderately in the first three quarters of 2012. Within that, there was relatively solid growth in the United States, weakness in the euro area, and a small improvement in the pace of growth in some emerging economies. Survey indicators suggest that global activity continued to expand at a moderate rate in Q4 (Chart 2.8).

The euro area

Euro-area GDP fell by 0.1% in 2012 Q3. That weakness was broadly based across core and periphery countries, with output falling in some, such as Italy and Spain, and remaining subdued in others, including Germany. More recent data suggest that German output fell in Q4. The weakness in activity across the euro area is in large part due to the significant challenges of increasing competitiveness, and reducing indebtedness, in the euro-area periphery. These challenges are likely to weigh on demand in the most vulnerable economies for a prolonged period.

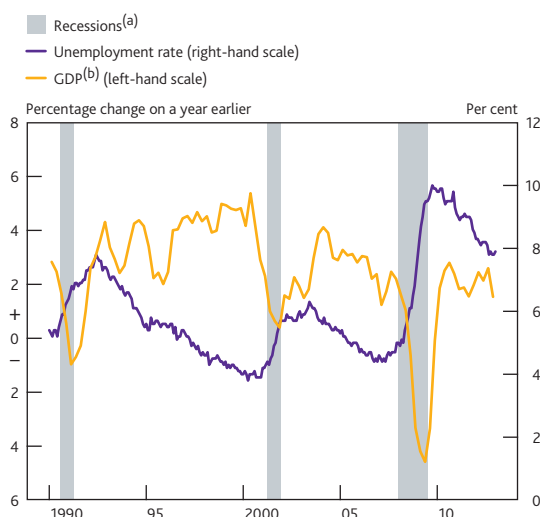
Prior to the November *Report*, the European Central Bank announced a framework to purchase the short-term debt of countries that agree to receive official support (Outright Monetary Transactions, see Section 1). That announcement was associated with broadly based improvements in financial market sentiment, falls in European bank funding costs and lower yields on periphery countries' sovereign debt. But it is likely that it will be some time before this is matched by higher real activity. Indeed, some indicators, such as industrial production, suggest a more marked decline in Q4 than Q3. Survey indicators, such as the Purchasing Managers' Index (Chart 2.8) and consumer confidence, have been picking up in recent months, pointing to some improvement in growth going into Q1.

(1) For more information see the box on page 21 of the May 2012 *Report*.

Chart 2.8 Survey measures of global output growth^(a)

Sources: HSBC, JPMorgan Chase & Co., Markit Economics, Nomura, US Bureau of Economic Analysis and US Institute for Supply Management (ISM).

- (a) A figure over 50 indicates rising output compared with the previous month, and a figure below 50 indicates falling output.
 (b) Based on the results of surveys in 32 countries, accounting for an estimated 85% of global GDP.
 (c) Manufacturing production and non-manufacturing business activity ISM survey balances weighted together using their nominal shares in value added.

Chart 2.9 US unemployment rate and GDP

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and National Bureau of Economic Research (NBER).

- (a) Recession bars use NBER dating methodology.
 (b) Chained-volume measure.

The United States

The US economy expanded relatively solidly in the first three quarters of 2012. GDP was flat in Q4, but this was temporarily depressed by weak defence spending, stockbuilding and bad weather. And domestic demand continued to grow robustly in Q4. The unemployment rate fell from a peak of 10% in October 2009 to 7.9% in January 2013. But it remains high by historical standards (**Chart 2.9**), and some of the fall reflects a lower rate of labour market participation, as well as a recovery in employment. The housing market continued to recover, and housing starts picked up further over the past year.

The Federal Reserve has provided further monetary policy stimulus to support the recovery (Section 1). Fiscal policy, however, will continue to drag on growth. The US Congress reached a temporary deal to avoid the 'fiscal cliff', a combination of tax rises and spending cuts that had been due to take effect at the beginning of 2013. On current plans, the degree of fiscal consolidation in 2013 is a little bigger than that seen in 2012. But some decisions have been postponed until March 2013 and the government is approaching a Congressional limit on government borrowing. Uncertainty about the extent of the fiscal tightening is likely to have weighed on consumer confidence in recent months: survey measures of confidence remained below their post-2000 averages in January.

Rest of the world

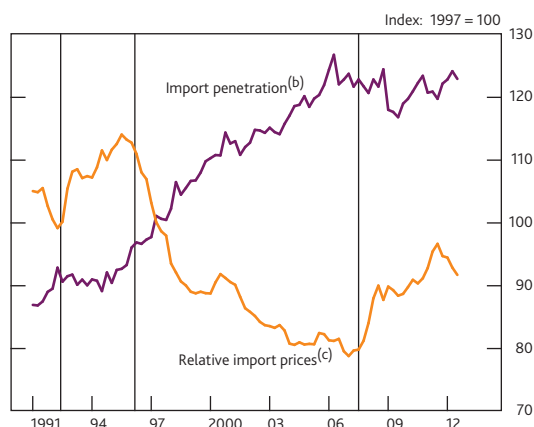
Activity in the rest of the world was mixed. The Japanese economy contracted by 0.9% in Q3. And survey indicators are consistent with a further small contraction in Q4 (**Chart 2.8**). Since the *November Report*, the new Japanese government has announced a comprehensive fiscal package to boost growth. And the Bank of Japan expanded its programme of asset purchases and introduced an inflation target of 2% (Section 1).

Growth in emerging economies had been slowing, but appears to have troughed. Four-quarter growth in China and Brazil picked up in the second half of 2012, but growth in India remained relatively weak.

Trade

UK exports depend on both world trade and the share of that trade captured by UK companies. World trade grew modestly in the year to November 2012. But UK export performance was disappointing, especially given the support from the past depreciation of sterling. Export volumes in 2012 Q3 were a little below their level at the end of 2011 and monthly trade data suggest that exports of goods fell in Q4. As discussed in the box on pages 24–25, weak export growth has been driven by particular weakness in services exports, in part reflecting restructuring in the financial services sector.

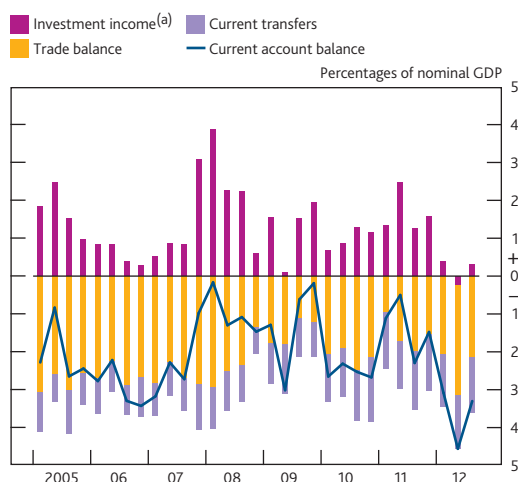
Chart 2.10 UK import penetration and relative import prices^(a)



Sources: ONS and Bank calculations.

- (a) The vertical lines mark the beginning of major nominal exchange rate movements that began in 1992 Q3 (a depreciation), 1996 Q2 (an appreciation) and 2007 Q3 (a depreciation).
 (b) UK imports as a proportion of import-weighted total final expenditure, chained-volume measures. Import-weighted total final expenditure is calculated by weighting household consumption (including non-profit institutions serving households), whole-economy investment (excluding valuables), government spending, stockbuilding (excluding the alignment adjustment) and exports by their respective import intensities. Import and export data have been adjusted to exclude the estimated impact of MTIC fraud. Import intensities are estimated using the *United Kingdom Input-Output Analytical Tables 2005*.
 (c) Import prices, excluding the estimated impact of MTIC fraud, divided by the market price GDP deflator.

Chart 2.11 UK current account



- (a) Includes compensation of employees.

The depreciation of sterling between mid-2007 and the end of 2008 led to some switching of expenditure away from imports, as the sterling price of imports rose relative to that of domestically produced goods and services. That is evident in the flattening in import penetration — spending on imports relative to total spending — since 2007, in contrast to the rising trend in the decade prior to the depreciation (**Chart 2.10**). In the year to 2012 Q3, UK imports continued to grow only modestly (**Table 2.A**), and monthly trade data indicate that goods import growth fell a little in Q4.

The current account deficit remained substantial in 2012 Q3, although it narrowed from its Q2 level (**Chart 2.11**). According to the latest vintage of national accounts data, the increase in the current account deficit since 2011 Q4 reflects both a widening in the trade deficit and a fall in net investment income. More generally, the current account deficit, alongside other factors such as low national savings, indicates the need for UK demand and output to continue to rebalance towards net exports.⁽¹⁾

(1) The need for the United Kingdom to rebalance is discussed in Berry, S, Corder, M and Williams, R (2012), 'What might be driving the need to rebalance in the United Kingdom?', *Bank of England Quarterly Bulletin*, Vol. 52, No. 1, pages 20–30.

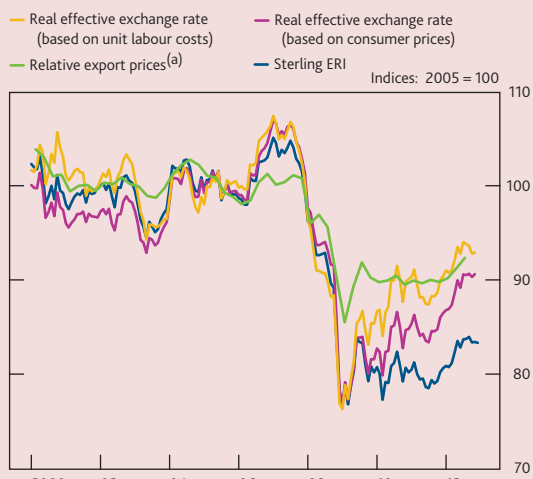
UK export performance

The UK economy needs to rebalance away from domestic demand and towards exports.⁽¹⁾ The sharp depreciation of sterling in 2007 and 2008 should have helped this process. But despite that depreciation and a recovery in world trade, exports have grown only 0.4% a quarter on average since the start of 2009, compared with average growth of just over 1% in the ten years prior to the crisis. This box considers reasons for that disappointing export performance.⁽²⁾

Supply of exports and the real exchange rate

The nominal sterling exchange rate has appreciated a little since its sharp depreciation, but remains around 20% below its pre-crisis peak (Chart A). Following a fall in the exchange rate, companies can choose to reduce the price at which they sell exports in foreign markets or earn higher profits per unit sold on their export sales. Since mid-2007, relative export prices have fallen, suggesting that some of the fall in the exchange rate has been reflected in the prices that exporters charge in other countries. But not all of the fall has been passed through — profits of exporting companies are therefore likely to have risen relative to those producing for the domestic market since the depreciation.

Chart A Exchange rate measures



Sources: Bank of England, CEIC, IMF, ONS, Thomson Reuters Datastream and Bank calculations.

(a) UK export prices divided by domestic currency export prices of goods and services of 52 countries weighted according to their shares in UK imports, divided by the average sterling effective exchange rate index over the quarter. The sample does not include any major oil exporters. The observation for 2012 Q3 is an estimate. In 2012 Q3, export prices for Croatia, Pakistan, the Philippines and Turkey are assumed to grow at the same rate as export prices in the rest of the world excluding the euro area and the United States.

Regardless of whether UK exporters allow foreign currency prices to fall (therefore boosting demand for their products) or accept higher margins, the depreciation should aid a rebalancing over time. For example, higher margins in one sector of the economy should eventually be competed away as other companies that were previously producing for the domestic market enter the export sector, although this process

of rebalancing could take some time. Movements in the real exchange rate will influence the extent of any rebalancing.

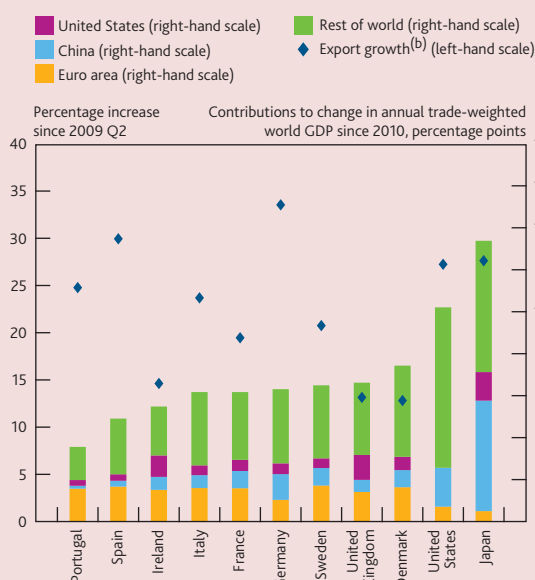
Chart A suggests that the real exchange rate has risen in the recent past: for example, a measure based on unit labour costs has increased substantially. That reflects rises in UK unit labour costs relative to those in other countries, and the modest appreciation of the nominal exchange rate relative to mid-2011. Overall, this suggests some deterioration in the competitiveness of UK exports.

Demand from the rest of the world

Despite the depreciation of sterling, UK exports have increased by less than those of the United States and many euro-area countries since mid-2009 (Chart B). The global recovery has been patchy, with some regions experiencing faster growth than others. But the relative weakness of UK exports does not reflect particular weakness in its major trading partners.

Chart B shows that growth in the United Kingdom's major trading partners, weighted by export shares, has been no worse than that of many other countries that have achieved stronger export growth. That means that some other explanation is needed to explain the disappointing performance of UK exports.

Chart B International export growth and external demand conditions^(a)



Sources: IMF, OECD, UN Comtrade (DESA/UNSD) and Bank calculations.

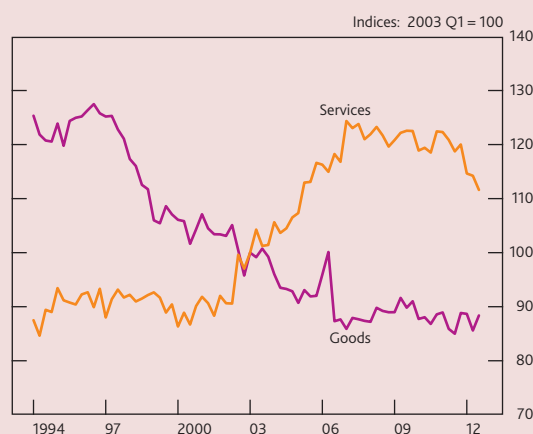
(a) For each country on the x-axis, the bar shows weighted annual real GDP growth in its major trading partners from 2010 to 2012, where weights are the share of that country's exports going to each trading partner in 2009. The data set includes 60 trading partners in total, which have been grouped into four economic regions: China, the euro area, the United States and the rest of the world.
(b) Chained-volume measures. Export growth over the period 2009 Q2 to 2012 Q3.

Goods and services exports

Although at an aggregate level UK export performance has been disappointing, that largely reflects weak services exports. Indeed, weaker sterling appears to have arrested the slide in the United Kingdom's share in the total goods imports of its

major trading partners (Chart C).⁽³⁾ In contrast, the United Kingdom's services share, which had been rising in the run-up to the financial crisis, flattened off in 2007, and has fallen over the past year. That largely reflects trends in exports of business services, and, more importantly, in financial services, which account for a quarter of services exports.

Chart C Ratios of UK exports to UK-weighted rest of G7 imports^(a)



Sources: Eurostat, Japan Cabinet Office, ONS, Statistics Canada, Thomson Reuters Datastream, US Bureau of Economic Analysis and Bank calculations.

(a) Chained-volume measures of UK goods (services) exports divided by real imports of goods (services) in Canada, France, Germany, Italy, Japan and the United States, weighted using UK 2011 goods (services) export shares from the 2012 *Pink Book*. UK goods exports data have been adjusted for MTIC fraud by an amount equal to the ONS goods import adjustment.

Financial services exports reflect a range of services provided by banks and other financial institutions, including providing deposit and loan facilities and facilitating financial market transactions.⁽⁴⁾ In the years prior to the crisis, UK financial intermediaries expanded their overseas business, so that financial services exports grew almost twice as fast as total services exports (Table 1). But since the crisis, financial services have dragged on services export growth. Over and above this direct contribution, demand for other UK business services, such as legal and accountancy services, is partly dependent on the demand for financial services.

It is likely that demand for UK financial services has fallen. Following the financial crisis, demand for financial products has fallen internationally as risk aversion has risen. But it seems that the United Kingdom has been disproportionately affected: over half of UK financial services exports go to continental Europe or the United States, where, taken together, imports of financial services have held up rather better than UK financial services exports (Table 1).⁽⁵⁾ This could reflect lower demand for UK financial services in general, or a particularly sharp fall in demand for those financial products in which the United Kingdom specialised prior to the crisis.

But the supply of UK financial services may also have fallen. Following the crisis, banks around the world have had to

Table 1 UK nominal financial services exports and imports by the United States and European Union

Percentage changes on a quarter earlier

	Averages			
	2004–07	2008–10	2011	2012 Q1–Q3
UK services exports	2.6	1.3	0.7	-1.2
UK financial services exports (25%) ^(a)	4.8	-0.5	1.6	-2.8
US financial services imports (22%) ^(b)	6.7	-1.1	-0.6	0.4
EU (excluding UK) financial services imports (40%) ^(b)	4.4	2.5	1.0	1.8

Sources: Bank of England, Bureau of Economic Analysis, Eurostat and ONS.

(a) The figure in parentheses shows the weight of UK financial services exports relative to total UK services exports, based on the average between 2010 Q1 and 2012 Q3.

(b) The figures in parentheses show the percentage of total UK financial services exports to the United States and EU respectively, based on 2010 data from the 2012 *Pink Book*. Since 2006 Q2 for US data, since 2004 Q2 for EU data.

increase the resilience of their balance sheets: since 2009, the major UK banks have sought to try to do that largely by reducing their risk-weighted assets.⁽⁶⁾ That would be likely to be associated with a reduction in overseas, as well as domestic, business, dragging on financial services exports.

Conclusion

Although some of the competitiveness gains from the 2007/08 depreciation of sterling have been eroded, that depreciation has nonetheless supported UK goods exports. Goods exports growth will therefore depend crucially on the performance of the United Kingdom's major trading partners, and future changes in competitiveness. The services export share, on the other hand, has fallen. That largely reflects weakness in financial services exports, which is likely to reflect a combination of lower demand for UK financial services, and weaker supply. In the near term at least, these influences are likely to persist, meaning that financial services are likely to provide considerably less support to UK export growth than before the financial crisis.

(1) The need for the United Kingdom to rebalance is discussed in Berry, S, Corder, M and Williams, R (2012), 'What might be driving the need to rebalance in the United Kingdom?', *Bank of England Quarterly Bulletin*, Vol. 52, No. 1, pages 20–30.

(2) For earlier work on this topic see Kamath, K and Paul, V (2011), 'Understanding recent developments in UK external trade', *Bank of England Quarterly Bulletin*, Vol. 51, No. 4, pages 294–304.

(3) The value-added of goods exports is much lower than that of services exports as the former are more import-intensive.

(4) The definition of financial services exports and some issues around their measurement are set out in more detail in a box on page 299 of Kamath and Paul (2011), as referenced in footnote (2) above.

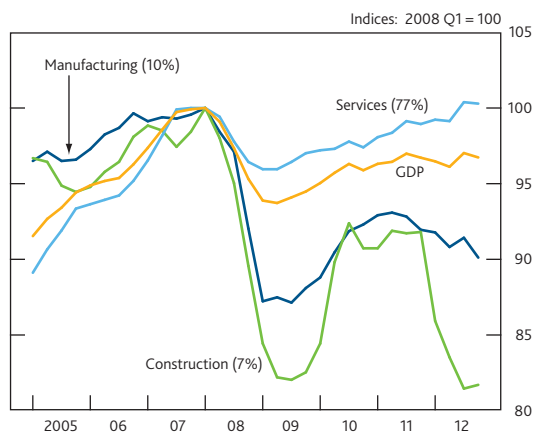
(5) It is difficult, however, to make a direct comparison as financial services are measured differently in the different countries.

(6) See, for example, pages 24–25 of the November 2012 *Financial Stability Report*.

3 Output and supply

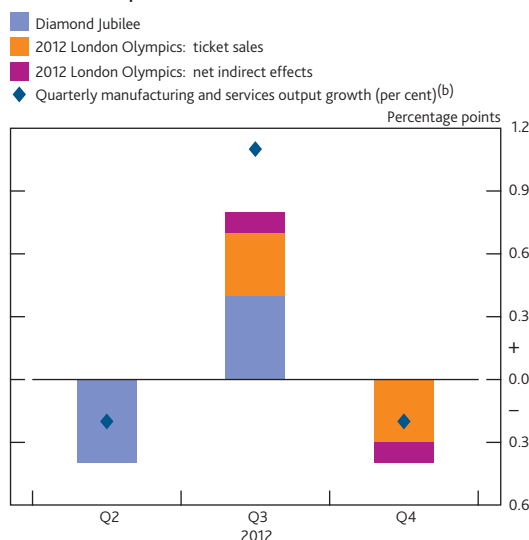
Output is estimated to have fallen by 0.3% in Q4, but that decline was accounted for by the unwind of the temporary boost from the Olympic Games. Looking through recent volatility, GDP has risen only modestly since mid-2010. In contrast, employment has grown strongly during that period. Reflecting that, labour productivity has fallen. Unemployment remains elevated, however, and there appears to be a considerable margin of slack in the labour market.

Chart 3.1 GDP and sectoral output^(a)



(a) Chained-volume measures. GDP is at market prices. Indices of sectoral output are at basic prices. The figures in parentheses show 2009 weights in gross value added.

Chart 3.2 Bank staff estimates of the contributions of special events to quarterly growth in manufacturing and services output^(a)



Sources: ONS and Bank calculations.

(a) The contribution of ticket sales for the Olympics has been estimated using the value of ticket sales reported by the London Organising Committee of the Olympic Games, of around £580 million. The contributions of the Diamond Jubilee and the indirect effect of the Olympics have been estimated by Bank staff from the monthly profile of growth in manufacturing and services output growth, and of growth in the services subsectors that are most likely to have been affected by these events.

(b) Chained-volume measure.

The recovery in output since the 2008/09 recession (Section 3.1) has been notably weaker than previous UK recoveries and recent international experience. Continued weakness in output growth contrasts with robust growth in employment since mid-2010; productivity has fallen. Some of this productivity weakness is likely to be directly associated with weak demand, which means that productivity could recover sharply as demand recovers. But some of it appears to reflect a period of subdued underlying productivity growth, such that the outlook for productivity, and demand too, is closely linked to developments in the factors currently holding underlying productivity back (Section 3.2). Unemployment has edged lower, but there still seems to be a sizable amount of labour market slack (Section 3.3).

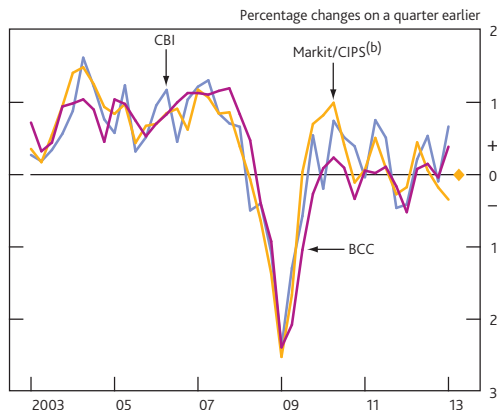
3.1 Output

Since mid-2010, the level of GDP has risen by only 1.1% and remains more than 3% below its 2008 peak (Chart 3.1). The shortfall is accounted for by three sectors: manufacturing, construction, and oil and gas extraction (which has declined steadily since 2000). The service sector, which accounts for three quarters of GDP, has, by contrast, regained its pre-crisis level of output.

In Q4, GDP is estimated to have fallen by 0.3%, driven by lower output in manufacturing and in oil and gas extraction. Service sector output was flat and output in the construction sector rose marginally. But the fall in GDP overstates the weakness of activity. In particular, the fall in manufacturing and services output together was more than accounted for by the unwind of the temporary boost to output in Q3 provided by the Olympics (Chart 3.2).⁽¹⁾ Looking through the effects of the Olympics and also the extra bank holiday for the Jubilee in Q2, Bank staff estimate that underlying growth in

(1) The box on pages 26–27 of the May 2012 Report discussed the effects of the additional bank holiday associated with the Diamond Jubilee and the 2012 Olympic Games on the path of GDP growth in more detail.

Chart 3.3 Survey indicators of expected near-term growth in manufacturing and services output^(a)

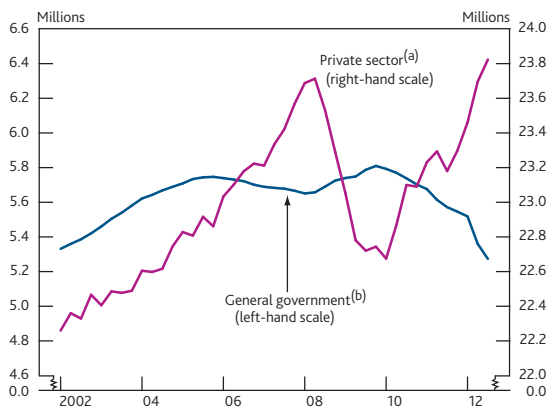


Sources: BCC, CBI, CBI/PwC, Markit Economics, ONS and Bank calculations.

(a) Aggregate measures of business expectations from the BCC, CBI and Markit/CIPS surveys have been produced by weighting together sectoral surveys using nominal shares in value added. The surveys used are: BCC turnover confidence (non-services and services), CBI business optimism (manufacturing, financial services, business/consumer services and distributive trades) and Markit/CIPS orders (manufacturing) and business expectations (services). The BCC data are non seasonally adjusted. The aggregate measures have been adjusted to have the same mean and variance as quarterly GDP growth over the period 1999–2012. Balances have been moved forward one quarter.

(b) Diamond shows data for January 2013.

Chart 3.4 Private sector and general government employment

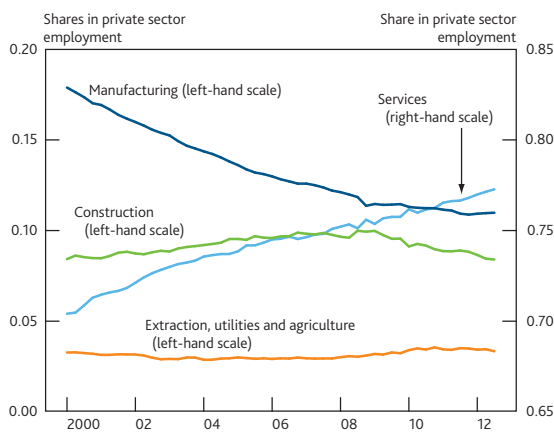


Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) LFS private sector employment. Calculated as the difference between LFS whole-economy employment and total public sector employment excluding publicly owned English further education corporations and sixth-form college corporations from the ONS's public sector employment release, adjusted to be on a calendar-quarter basis. Prior to 2008, this measure of public sector employment has been assumed to grow in line with total public sector employment from the ONS's public sector employment release.

(b) General government (including public corporations) employment data are from the ONS's public sector employment release.

Chart 3.5 Sectoral employment shares^(a)



Sources: ONS and Bank calculations.

(a) Private sector employment is defined as whole-economy employment excluding public administration, education and health.

manufacturing and services output was around 0.2% to 0.3% in Q3 and Q4.

Indicators of growth in 2013 Q1 have given mixed messages. The CBI and BCC indicators of output expectations point to positive, albeit below average, growth in services and manufacturing output (**Chart 3.3**). In contrast, Markit/CIPS surveys taken in Q4 were consistent with a fall in output, although the January surveys were a little more positive. Overall the MPC judges that it is likely that growth will remain subdued in the near term. The medium-term outlook is discussed in Section 5.

3.2 Labour demand and productivity

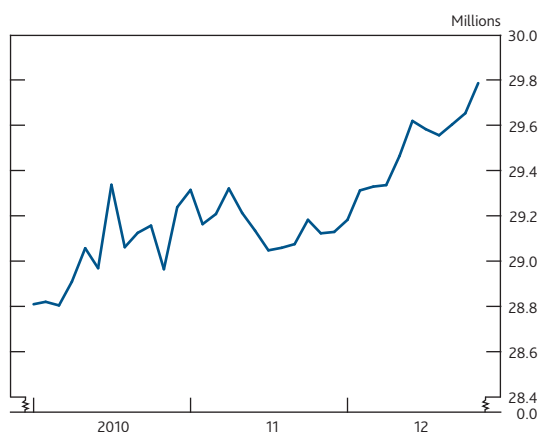
The strength of labour demand

Since mid-2010, private sector employment has grown strongly, more than offsetting a fall in public sector employment (**Chart 3.4**). Over that period, the level of private sector employment rose by around one million and, in Q3, stood above its 2008 peak. That rise was driven by relatively high rates of hiring, as the number of people leaving employment has remained close to its pre-crisis average. Around half of the expansion in employment has been accounted for by an increase in part-time working. But that has been offset by rises in average hours worked, by both part-time and full-time employees, so that total hours worked have increased in line with employment.⁽¹⁾

The pickup in private sector employment since mid-2010 is more than accounted for by an expansion in service sector employment. That rise has been fairly broadly based. Manufacturing employment has also risen a little, which is particularly notable given that manufacturing employment has been in decline for decades. Indeed the rate of decline in manufacturing's share of private sector employment has slowed in recent years (**Chart 3.5**). Set against those rises in services and manufacturing, construction employment has fallen by 6%.

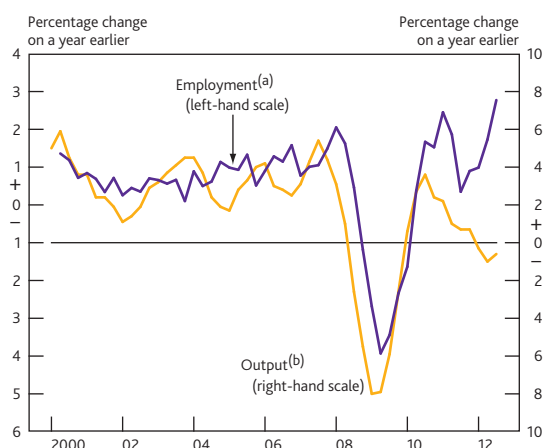
Robust private sector employment growth looks likely to have continued into Q4. Whole-economy employment expanded by 90,000 in the three months to November. That is unlikely to reflect public sector hiring, given the continuing fiscal consolidation (Section 2). Moreover, the rise in whole-economy employment was not due to a temporary Olympics-related boost, as employment rose in each of the three months to November (**Chart 3.6**). Looking ahead, surveys of employment intentions point to more subdued private sector employment growth in the near term, although those surveys underestimated employment growth throughout 2012.

(1) For more information see the box on page 27 of the November 2012 Report.

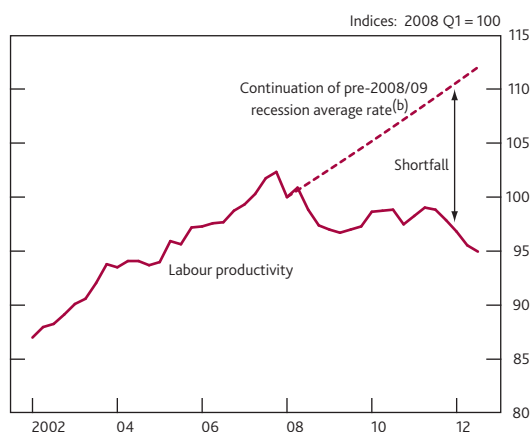
Chart 3.6 Single-month whole-economy employment^(a)

Source: Labour Force Survey.

(a) All employees aged 16 or over.

Chart 3.7 Private sector output and employment

Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) LFS private sector employment. Data are defined as in Chart 3.4. Data start in 2000 Q2.
(b) Market sector gross value added. Chained-volume measure at basic prices.**Chart 3.8** Private sector labour productivity^(a)

(a) Market sector output per hour.

(b) The continuation of the pre-2008/09 recession average rate is calculated by projecting forward labour productivity from 2008 Q2 using the average quarterly growth rate between 1999 Q3 and 2008 Q1.

The weakness of measured labour productivity

The strength of private sector employment growth since mid-2010 contrasts with the weakness in private sector output growth (Chart 3.7). In recent quarters, the divergence between employment and output growth has widened, and labour productivity has fallen back to its 2005 H1 level (Chart 3.8). On current estimates, private sector output per hour is around 15% lower than it would have been had it continued to grow at its pre-2008/09 recession average rate.

Past rates of productivity growth may not be a good guide to future trends. For example, there has been a structural decline in productivity in oil and gas extraction over the past decade. And productivity growth in financial services may have been unsustainably high prior to the crisis. These two factors can only account for 1 to 2 percentage points of the measured productivity shortfall, however.⁽¹⁾

It is possible that current output and employment data together overstate the size of the productivity shortfall, but the impact of any mismeasurement is probably limited. The broad pattern of output growth is supported by other activity indicators, suggesting that any future revisions are likely to be relatively small. And Workforce Jobs data and the Annual Survey of Hours and Earnings corroborate the significant rise in private sector employment since 2010 shown in the Labour Force Survey (LFS).

Within private sector employment, self-employment has risen by more than 200,000 since mid-2010. The increase in employment could then exaggerate the strength in labour demand if, for example, some of these people had become self-employed because they were unable to find jobs in an existing business. But even under the extreme assumption that those who became self-employed after mid-2010 had yet to produce any output, the rise in self-employment could account only for about 1 percentage point of the productivity shortfall.

The remainder of this section discusses two broad categories of explanations for the productivity shortfall, with different implications for the evolution of productivity. These broad categories of explanation are discussed in more detail in Section 3 of the November 2012 Report.

On the one hand, the weakness in productivity may be a direct consequence of the sustained weakness in demand. In that case, productivity could recover sharply as demand recovers.

On the other hand, factors associated with the financial crisis may have reduced growth in underlying productivity — the amount of output that a given amount of labour could produce if demand were not a constraint on output. In that

(1) For more information see page 28 of the November 2012 Report.

case, productivity will depend on the extent to which those impediments — which may also have been partly responsible for weak demand — dissipate.

Demand and measured productivity

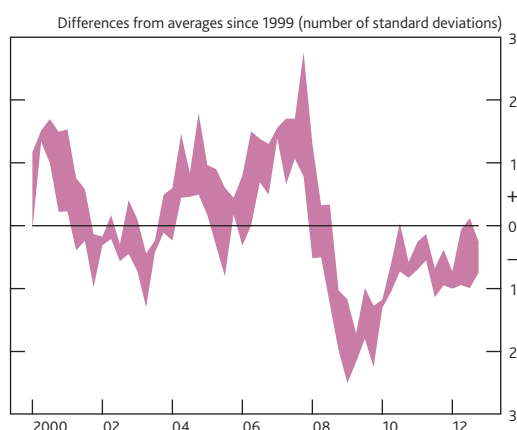
The weakness in demand could have reduced productivity if some businesses have been unable to cut employment in line with demand without shutting down some of their operations. For example, retailers need a minimum number of staff to keep each shop operating. Small businesses in particular are likely to be unable to reduce their workforce below a certain level in the face of weak demand. Another possibility is that some businesses have retained staff in anticipation of a return to more normal levels of demand, perhaps because those staff have company-specific skills that would be difficult or costly to replace.

In addition, for some businesses, more staff effort may be needed to produce a given level of output when demand is subdued. For example, winning and delivering work may become more resource-intensive when demand is persistently weak. Reports from the Bank's Agents suggest that this has been important in the business services sector. Companies experiencing this may report that they have little spare capacity at present. But, provided that there has been no change in their ability to produce output, they should have ample scope to expand production should demand recover. If there are many such companies, that could explain why the proportion of companies reporting that they are operating below normal capacity is at a relatively low level (**Chart 3.9**). But that narrow margin of spare capacity could also reflect a period of weak underlying productivity growth and greater constraints on expanding output, as explained in the next subsection.

Constraints on underlying productivity growth

International evidence suggests that financial crises often have a material and persistent impact on the capital stock.⁽¹⁾ Tighter credit conditions and elevated uncertainty about the demand outlook discourage businesses from undertaking investment. Although annual business investment is small compared with the overall capital stock, a prolonged period of subdued investment can have a significant impact. Since its 2009 trough, business investment has grown by 16% (Section 2), but it nevertheless remains around 20% below where it would have been had it continued to grow at its pre-2008 average rate. If investment had continued along that path, then under plausible assumptions, there would, on average, have been at least 5% more capital for each private sector employee by 2012 Q3. That would account for at least 1.5 percentage points of the productivity shortfall. But these estimates are very uncertain, as ONS estimates of the

Chart 3.9 Survey indicators of capacity utilisation^(a)



Sources: Bank of England, BCC, CBI, CBI/PwC and ONS.

(a) Three measures are produced by weighting together surveys from the Bank's Agents (manufacturing and services), the BCC (non-services and services) and the CBI (manufacturing, financial services, business/consumer services and distributive trades) using nominal shares in value added. The BCC data are non seasonally adjusted.

(1) See Oulton, N and Sebasti  -Barriel, M (2013), 'Long and short-term effects of the financial crisis on labour productivity, capital and output', *Bank of England Working Paper No. 470*.

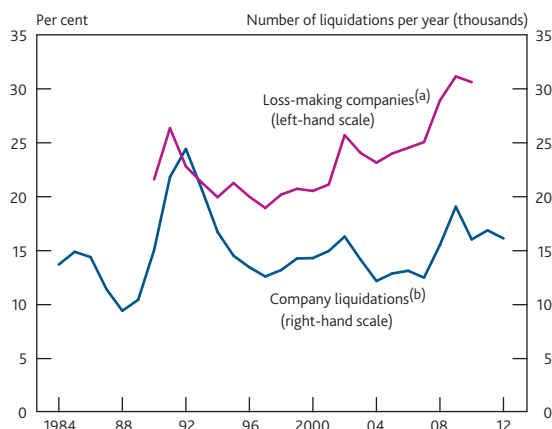
UK capital stock have not been published since 2011, and are only available to 2009.

More generally, problems in the banking sector are likely to have prevented resources from being put to their most productive use within the economy. Tighter credit conditions are likely to have constrained some businesses' ability to expand output, especially those relying heavily on working capital. And banks may have been less willing to lend to new or dynamic companies that have the potential to achieve higher productivity, if those loans were perceived as carrying greater risks.

A relatively low level of company liquidations may also have been associated with lower productivity. Liquidations have risen only modestly since the financial crisis, even though data from companies' accounts suggest that the proportion of companies making a loss is higher than in the early 1990s (**Chart 3.10**). Insolvency professionals suggest that more businesses have been able to survive the 2008/09 recession because of the low level of Bank Rate, coupled with increased forbearance. That includes forbearance by banks on existing loans, by HMRC on outstanding tax payments, and by other companies on late payments. Forbearance and low interest rates will allow some viable businesses to remain in operation through a temporary period of weak demand. But in other cases, where businesses will find it hard to compete in their markets when demand recovers, forbearance acts as an impediment to the efficient reallocation of capital and labour, reducing underlying productivity growth. Similarly, it may have dampened the incentives to carry out the restructuring needed by some companies in order to grow strongly.

The weakness of productivity will reflect a combination of the factors discussed above, with different companies affected in different ways. On balance, the MPC judges that productivity growth will gradually recover, as conditions in the banking sector improve and uncertainty dissipates (Section 5).

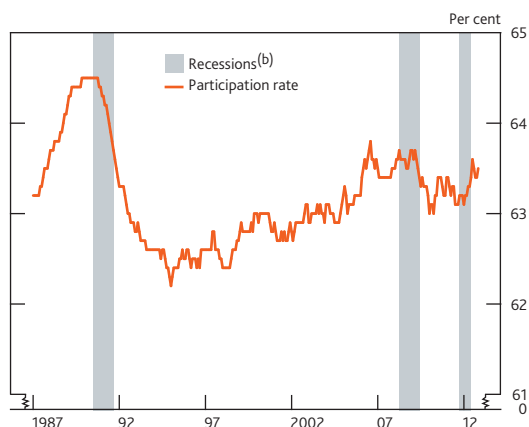
Chart 3.10 Company liquidations in England and Wales and an estimate of loss-making companies



Sources: Bureau van Dijk, The Insolvency Service and Bank calculations.

- (a) The number of companies that reported negative pre-tax profits in each year as a percentage of the total number of private non-financial companies in the Bureau van Dijk data set that report data on pre-tax profits. Companies in the mining and quarrying, electricity and gas supply, and water supply sectors and extra-territorial organisations are excluded from the calculations. Data are to 2010.
- (b) Changes to legislation, data sources and methods of compilation mean the statistics should not be treated as a continuous and consistent time series. Since the Enterprise Act 2002, a number of administrations have subsequently converted to creditors' voluntary liquidations. These liquidations are excluded from both the headline figures published by The Insolvency Service and the chart.

Chart 3.11 Participation rate^(a)



Source: ONS (including the Labour Force Survey).

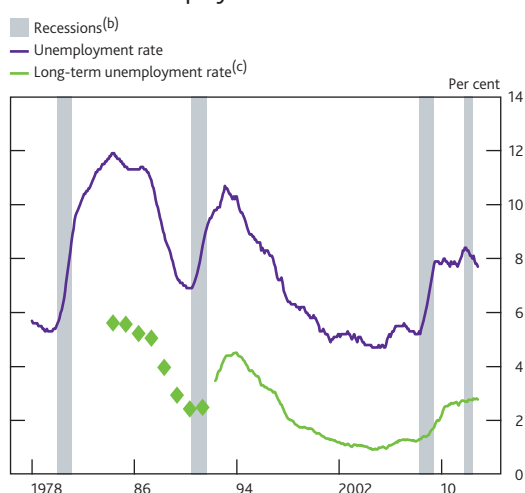
- (a) Percentage of the 16+ population. Three-month rolling measure.
- (b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end once output began to rise.

3.3 Labour market supply and labour market slack

As well as spare capacity within companies, inflationary pressures also depend on the degree of slack in the labour market — the balance between labour demand and supply.

Labour supply

Labour supply depends, in part, on the proportion of the adult population available and willing to work. The participation rate fell modestly following the 2008/09 recession, but has been rising since early 2012, regaining its 2007 level in June (**Chart 3.11**). That could be because weak growth in households' real income over 2011 (Section 2) boosted participation among potential second earners, or encouraged older employees to postpone retirement. The surprising

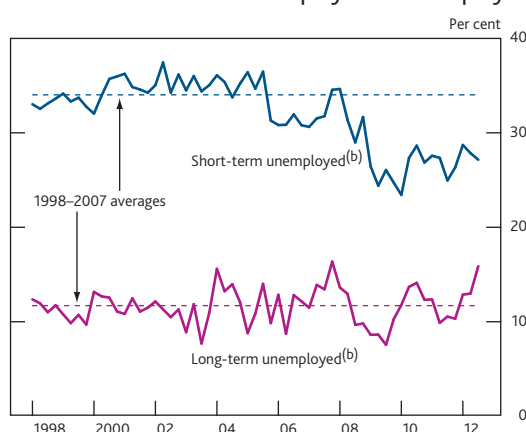
Chart 3.12 Unemployment rates^(a)

Source: ONS (including the Labour Force Survey).

(a) Rolling three-month measures unless otherwise stated.

(b) Recessions are defined as in **Chart 3.11**.

(c) Defined as those people who have been unemployed for more than twelve months divided by the economically active population. Data prior to 1992 are based on non seasonally adjusted, annual LFS microdata. These annual observations correspond to the March-May quarter.

Chart 3.13 Flows from unemployment to employment^(a)

Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Based on LFS microdata that have been seasonally adjusted by Bank staff. Data are to 2012 Q3 and based on the 16–64 population.

(b) Flows into LFS employment by those who had been unemployed for fewer (more) than twelve months as a percentage of the number of people who were unemployed for fewer (more) than twelve months in the previous quarter.

resilience of labour demand is also likely to have encouraged some people, who otherwise would have remained outside the labour market, to start looking for jobs.

Labour market slack

The unemployment rate, one measure of the balance between labour demand and supply, fell to 7.7% in the three months to November, although it remains 2.5 percentage points higher than at the start of 2008 (**Chart 3.12**). The amount of downward pressure that those seeking jobs place on wages is likely to diminish the longer that they have been unemployed, as their skills erode. But the long-term unemployment rate remains low relative to the 1990s (**Chart 3.12**). And the average rate at which the long-term unemployed are finding jobs is at its highest level since 2007 (**Chart 3.13**).

A broader indicator of labour market tightness also points to a significant margin of slack (**Table 3.A**). The weighted non-employment rate weights those without jobs by their probability of finding work. Like the unemployment rate, this measure rose during the 2008/09 recession, but has remained broadly stable at an elevated level since.

It is also likely that some of those in part-time work could increase their hours or move into full-time jobs, suggesting greater labour market slack than indicated by unemployment or non-employment rates. Since 2008 the proportion of people working part-time and reporting that they would prefer a full-time job has increased (**Table 3.A**). Average hours worked by part-time employees have also risen since mid-2010 (Section 3.2). But there could be scope for further increases.

Overall, labour market slack has fallen modestly through 2012, across a range of measures (**Table 3.A**). It is nevertheless likely that a considerable margin of slack remains.

Table 3.A Selected indicators of labour market slack

	Averages			2012		
	1998–2007 ^(a)	2010	2011	H1	Q3	Q4
LFS unemployment rate ^(b)	5.3	7.9	8.1	8.1	7.8	7.7
Claimant count unemployment rate	3.2	4.6	4.7	4.9	4.8	4.8
Weighted non-employment rate ^{(b)(c)}	7.6	9.4	9.5	9.4	9.2	9.1
Vacancies/unemployed ratio ^{(b)(d)}	0.41	0.19	0.18	0.18	0.19	0.20
Part-time workers who could not find full-time work ^{(b)(e)}	2.2	3.8	4.3	4.8	4.8	4.7

Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Unless otherwise stated.

(b) The figure for 2012 Q4 shows data for the three months to November.

(c) Percentage of the 16–64 population. This measure weights together different types of non-employed by the 1998–2007 averages of quarterly transition rates of each group into employment derived from the LFS.

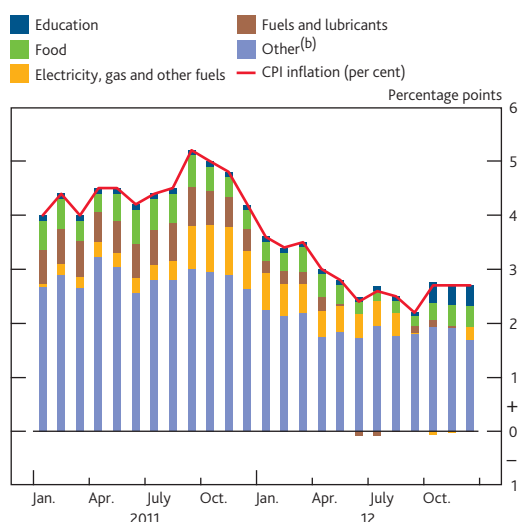
(d) Number of vacancies (excluding agriculture, forestry and fishing) divided by LFS unemployment. Average is since 2001 Q2.

(e) Number of people reporting to the LFS that they are working part-time because they could not find a full-time job, as a percentage of LFS total employment.

4 Costs and prices

CPI inflation rose to 2.7% in December from 2.2% in September, largely reflecting increases in university tuition fees and utility bills. The contribution to inflation from those and other such administered and regulated prices is presently around 1 percentage point and is likely to stay around that level in coming years. Although earnings growth remained subdued in the year to 2012 Q3, unit labour costs grew strongly and domestic-facing companies' profit margins still appeared squeezed. Some indicators of near-term inflation expectations rose slightly in Q4.

Chart 4.1 Contributions to CPI inflation^(a)



(a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
(b) Calculated as a residual. Includes a rounding residual.

Table 4.A Bank staff projections for the contributions of food and fuel prices to CPI inflation^(a)

Percentage points	Contributions to annual CPI inflation	
	2012 Q4	2013 Q1
Food		
At the time of the November 2012 Report	0.2	0.1
At the time of the February 2013 Report	0.4	0.4
Change since November	0.2	0.3
Fuels and lubricants		
At the time of the November 2012 Report ^(b)	0.1	0.0
At the time of the February 2013 Report ^(c)	0.1	-0.1
Change since November	0.0	0.0

Sources: ONS and Bank calculations.

(a) Contributions to annual CPI inflation. Data are non seasonally adjusted. Figures in bold are published ONS data, not Bank staff projections. Changes may not equal difference between components due to rounding.
(b) Estimates used Department of Energy and Climate Change petrol and diesel price data for October 2012 and were based on the November 2012 sterling oil futures curve shown in Chart 4.4 thereafter.
(c) Estimates use Department of Energy and Climate Change petrol and diesel price data for January 2013 and are based on the February 2013 sterling oil futures curve shown in Chart 4.4 thereafter.

CPI inflation rose between September and December, from 2.2% to 2.7%. The near-term outlook for inflation is higher than expected at the time of the November Report (Section 4.1), with inflation likely to remain above the 2% target for the next two years. The path of inflation will be influenced by global costs and prices (Section 4.2), as well as by domestic factors (Section 4.3).

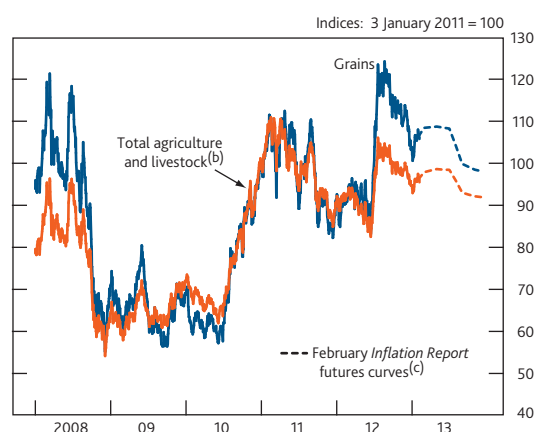
4.1 Consumer prices

Inflation rose to 2.7% in December from 2.2% in September. Around 0.3 percentage points of that pickup reflected increases in university tuition fees (Chart 4.1). And the contribution from domestic energy bills rose by a similar amount, as the majority of price rises announced by major gas and electricity suppliers during 2012 H2 came into effect. Those price rises were known at the time of the November Report. The contribution of food prices to inflation also rose during Q4, by 0.2 percentage points — a little higher than expected (Table 4.A).

CPI inflation is likely to remain around its present rate in Q1 — a slightly higher outlook than was expected three months ago. That largely reflects an upward revision to the anticipated contribution from food prices, which is expected to persist at its present level (Table 4.A). Although recent rises in sterling oil prices will push up petrol prices in the near term, the Government's decision to cancel the increase in fuel duty planned for January 2013 will broadly offset that. The inflation outlook is also higher beyond Q1, in part reflecting the effect of sterling's recent depreciation on import prices (Section 4.2).

4.2 Global costs and prices

Food, energy and import prices have had a substantial impact on CPI inflation in recent years, and will continue to be a key influence on the path of inflation. These prices affect CPI inflation directly, for example through households' energy bills, and indirectly, through their impact on companies' costs.

Chart 4.2 US dollar food commodity prices^(a)

Sources: Bloomberg, S&P indices, Thomson Reuters Datastream and Bank calculations.

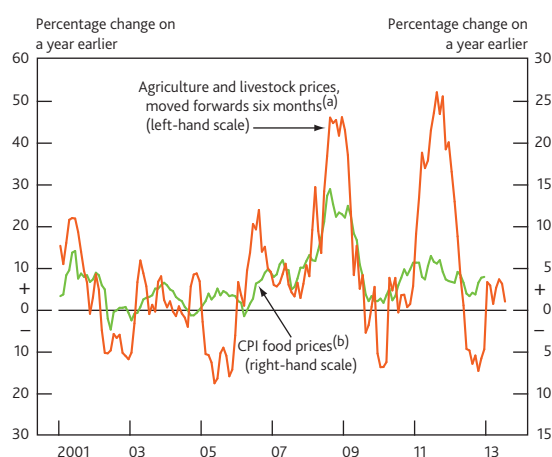
(a) Calculated using S&P US dollar commodity price indices.

(b) Including grain prices.

(c) The futures prices shown are averages during the fifteen working days to 6 February 2013. The futures prices for grains are a weighted average of the futures prices for Chicago wheat, Kansas wheat, corn and soybeans, where the weights are based on those used by S&P to construct the grains spot price index.

US dollar food commodity prices rose sharply in the middle of 2012. That largely reflected marked increases in the prices of some grains (Chart 4.2), as crop yields were adversely affected by weather conditions. Those price rises have, however, partially unwound in recent months, following some upward revisions to projected global grain production in 2013. Futures curves are broadly flat over 2013 H1.

Higher food commodity prices relative to their mid-2012 levels will, over time, pass through into higher UK consumer food prices. But movements in food commodity prices tend to be associated with much smaller movements in consumer food prices (Chart 4.3). That is because the price of food in shops also reflects the cost of other inputs used in the production and transportation of food products, such as labour and energy. In addition, UK consumer food prices are heavily influenced by the euro-sterling exchange rate, since a significant proportion of the food consumed in the United Kingdom is imported from the euro area with minimal subsequent processing required.

Chart 4.3 Sterling food prices

Sources: Bank of England, ONS, S&P indices, Thomson Reuters Datastream and Bank calculations.

(a) Monthly average of daily S&P (dollar) commodity price index, converted into sterling using the monthly average of market exchange rates. The latest observation is January 2013.

(b) The latest observation is December 2012.

On balance, it seems likely that consumer food prices will rise further in coming months, and continue to make a positive contribution to CPI inflation. But consumer food price inflation over 2013 could be more unfavourable. For example, the ratio of stocks to consumption for some grains, especially corn, were below their historical averages during the past year and are expected to fall further during 2013 (Table 4.B). Any adverse shocks to future crop yields could, therefore, lead to large rises in food commodity prices and so higher consumer prices. In addition, the recent depreciation of sterling against the euro (Section 1) is likely to raise UK consumer food prices.

Wholesale gas spot and futures prices were a little higher in the run-up to the February Report than they were at the time of the November Report. Sterling oil prices were around 7% higher, and futures prices rose by a similar amount (Chart 4.4). Those increases in oil prices are likely, in part, to have reflected increased optimism in financial markets about prospects for global demand (Section 1). Developments in supply may also have played a role: although production by non-OPEC countries has risen since November, that has been offset by declines in OPEC production. That said, concerns about severe disruptions to oil production, for example due to political tensions in the Middle East, have faded somewhat over the past three months. And longer-term forecasts for oil production have been revised up, largely reflecting higher projected supply from non-conventional sources such as shale oil. Reflecting those developments, the relative weight attached by market participants to further rises in oil prices — as indicated by prices of option contracts — has fallen considerably.

Table 4.B Selected agricultural stock to consumption ratios^(a)

Per cent	Averages		2009	2010	2011	Forecast
	Since 1980	2003–08				2012
Corn	26.6	17.4	17.7	15.0	15.3	13.3
Oilseed and soybean	20.3	23.2	25.5	27.8	21.5	22.6
Wheat	29.8	23.8	30.8	30.2	28.4	25.9

Source: United States Department of Agriculture.

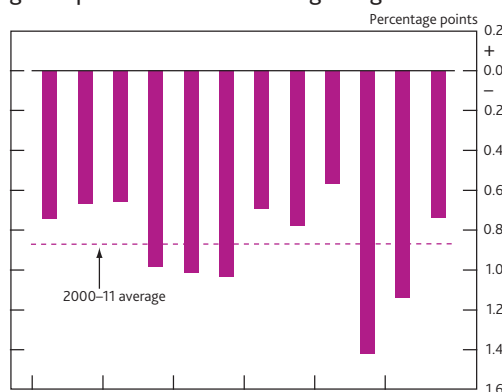
(a) Calculated as the ratio of end-year world stocks to world consumption. Data are for marketing years, for example 1980 refers to the marketing year 1980/81.

A key influence on UK import prices over the past two decades or so has been the integration of low-cost countries such as China and other emerging economies into the global trading

Chart 4.4 Sterling oil and wholesale gas prices

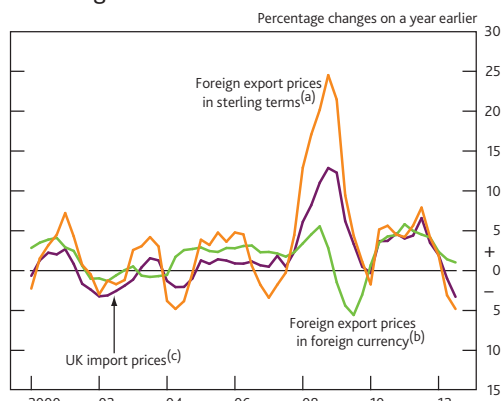
Sources: Bank of England, Bloomberg, Thomson Reuters Datastream and Bank calculations.

- (a) Brent forward prices for delivery in 10–21 days' time converted into sterling.
 (b) One-day forward price of UK natural gas.
 (c) The futures prices shown are averages during the fifteen working days to 7 November 2012 (dotted lines) and 6 February 2013 (dashed lines). The sterling oil futures curve is calculated by assuming that the sterling-dollar exchange rate remains at its average level during those respective fifteen-day periods.

Chart 4.5 Estimated effect on UK imported manufactured goods price inflation of China gaining market share^(a)

Sources: HM Revenue and Customs (HMRC), Thomson Reuters Datastream and Bank calculations.

- (a) Bank staff estimates. Estimated using data from HMRC's Overseas Trade Statistics on volumes, values and country of origin of UK imported manufactured goods. Goods are grouped together according to their two-digit SITC code. For each group, the effect of China gaining market share is estimated by regressing the percentage change in unit values on variables including the level of, and the change in, the proportion of imports of that industry that comes from China. These estimated effects are then weighted together using the share of each group in total UK manufactured goods imports. The method is similar to that in Kamin, S, Marazzi, M and Schindler, J (2006), 'The impact of Chinese exports on global import prices', *Review of International Economics*, Vol. 14, Issue 2, pages 179–201.

Chart 4.6 UK import prices and foreign export prices excluding oil

Sources: Bank of England, CEIC, ONS, Thomson Reuters Datastream and Bank calculations.

- (a) Domestic currency export prices of goods and services of 52 countries weighted according to their shares in UK imports, divided by the average sterling effective exchange rate index over the quarter. The sample does not include any major oil exporters. The observation for 2012 Q3 is an estimate, with export prices for Croatia, Pakistan, the Philippines and Turkey assumed to grow at the same rate as export prices in the rest of the world excluding the euro area and the United States.
 (b) Domestic currency export prices of goods and services of 52 countries, as defined in footnote (a).
 (c) Goods and services excluding fuels deflator, excluding the impact of MTIC fraud.

system. That has borne down on UK import prices through two effects. First, the average price of imports has fallen as UK businesses have increased the share of goods and services sourced from low-cost countries. And second, competition from low-cost countries has forced producers in other countries to reduce their prices.

The effect on UK import prices from China gaining market share has probably been much larger than the effect from gains made by other emerging economies: China's share in UK imports has risen by more over the past ten years and it appears to enjoy a greater cost advantage. Bank staff estimate that gains in China's market share reduced UK imported manufactured goods price inflation by around 0.9 percentage points per annum on average between 2000 and 2011 (Chart 4.5), which is judged to have reduced annual CPI inflation by about 0.2 percentage points over that period. Furthermore, the estimated effect does not appear to have diminished noticeably in the past few years.

Despite that downward pressure, non-fuel UK import prices rose sharply in 2008/09 and again in 2010/11 (Chart 4.6). That reflected increases in a wide range of commodity prices, which raised the production costs of companies around the globe, as well as the depreciation of sterling in 2007/08. The modest appreciation of sterling in 2011 H2 and 2012 H1, together with a diminution of foreign export price inflation, led UK import prices to fall in the year to 2012 Q3. But they are likely to rise again, given the recent depreciation of sterling (Section 1).

The increases in import prices over 2010 and 2011 are probably still exerting some upward pressure on CPI inflation, since it takes time for changes in companies' costs to feed through to consumer prices. That upward pressure waned over 2012. But the extent to which it fades further will depend on the extent to which the integration of low-cost countries continues to bear down on import prices, and the path of sterling (Section 5).

4.3 Domestic prices

In general, the path of inflation depends on developments in companies' costs and how companies set prices given those changes. Labour costs and price-setting behaviour are affected by productivity and the amount of slack in the economy (Section 3) and by expected inflation.

Some consumer prices are, however, less sensitive to factors such as slack and inflation expectations than prices more generally. For example, for some goods and services in the CPI basket, such as rail fares and university tuition fees, the prices charged are partly determined by regulators or the government. And for others, regulatory decisions have a significant bearing on production costs — for example, how much domestic energy suppliers have to contribute to the cost

Table 4.C Private sector earnings^(a)

Percentage changes on a year earlier

	Averages		2011	2012			
	2001–07	2008–10		Q1	Q2	Q3	Nov. ^(b)
(1) AWE regular pay	3.9	2.1	2.0	1.9	2.1	1.9	1.4
(2) Pay settlements ^(c)	3.3	2.6	2.1	2.3	2.3	2.2	2.1
(1)–(2) Regular pay drift ^(d)	0.6	-0.5	-0.1	-0.4	-0.2	-0.3	-0.7
(3) Total AWE	4.3	1.5	2.6	0.5	2.2	1.9	1.3
(3)–(1) Bonus contribution ^(d)	0.4	-0.6	0.5	-1.4	0.1	0.0	-0.1

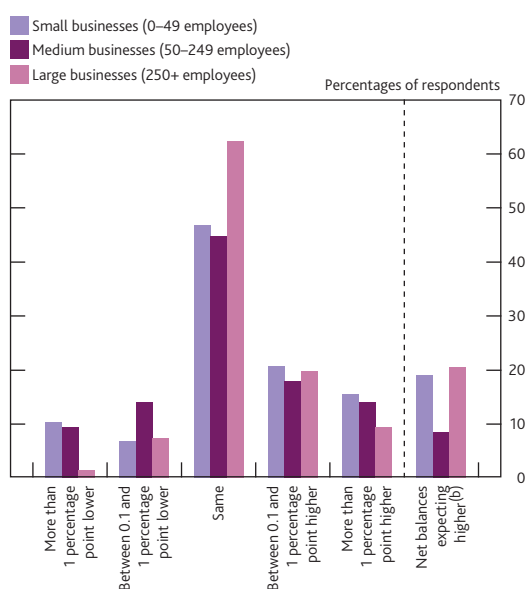
Sources: Bank of England, Incomes Data Services, Industrial Relations Services, the Labour Research Department and ONS.

(a) Based on quarterly data unless otherwise stated.

(b) Data in the two months to November.

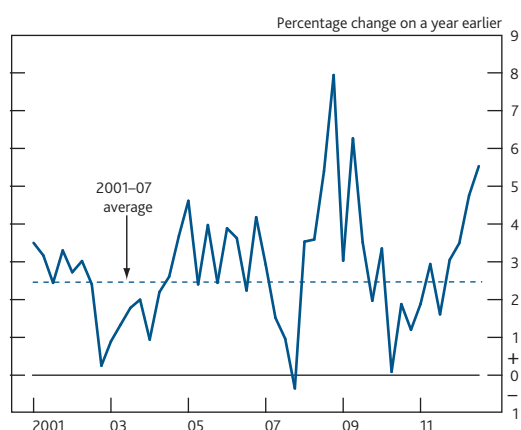
(c) Average over the past twelve months, based on monthly data.

(d) Percentage points.

Chart 4.7 Agents' survey: growth in labour costs per employee, expected change, 2013 on 2012^(a)

(a) Responses are weighted by number of UK employees. The survey was conducted between 11 December 2012 and 23 January 2013.

(b) Percentages expecting higher growth less percentages expecting lower growth.

Chart 4.8 Private sector unit labour costs^(a)

Sources: ONS and Bank calculations.

(a) Calculated using private sector average weekly earnings data, adjusted using the ratio of private sector employee compensation to wages and salaries, divided by market sector output per worker.

of maintaining distribution networks. As discussed in the box on pages 36–37, the contribution from such ‘administered and regulated’ prices stood at around 1 percentage point in Q4, double its 1997–2006 average, and is likely to remain around that level in coming years.

Developments in labour costs and company profits

Private sector nominal wage growth fell sharply during the 2008/09 recession and has subsequently remained substantially below its pre-recession average rate (Table 4.C). Within that, regular pay growth had been fairly stable at around 2% for most of the period since the middle of 2010, but it slowed towards the end of 2012. Muted pay growth in part reflected the effect of elevated unemployment (Section 3).

Earnings growth is likely to slow in Q1 due to a drag from financial services bonuses, which market contacts suggest will be lower in that quarter than they were a year earlier. That should, however, have few implications for future pay pressures, since bonuses are typically related to past performance.

Results from a recent survey by the Banks’ Agents suggest that wage growth will remain muted beyond Q1. Respondents expected annual pay settlements — which account for a large proportion of total earnings growth — in 2013 to be very similar to those in 2012.

As well as wages, businesses face other employment costs, such as pensions. On balance, respondents to the Agents’ survey expected total labour costs per employee to increase at a slightly higher rate in 2013 than in 2012 (Chart 4.7). Among large companies, that was mostly associated with the introduction of a legal requirement for employers to ensure that eligible employees are enrolled into a workplace pension scheme. That requirement has already come into force for the largest companies and will be phased in over coming years to cover all businesses. In addition, some small businesses expected recruitment and retention costs to raise labour cost growth.

The implications for inflation of developments in nominal labour costs will depend, in part, on productivity. That is because the measure of labour costs that has most bearing on companies’ pricing decisions is the cost per unit of output produced, which reflects developments in productivity as well as wages.

Over the recent past, nominal wages have not grown sufficiently slowly to offset weak productivity growth. As a result, four-quarter growth in private sector unit labour costs remained above its 2001–07 average rate in 2012 Q3 (Chart 4.8). That reflected particularly strong quarterly growth in the first half of 2012; quarterly growth slowed in Q3.

The implications of higher administered and regulated prices for CPI inflation

A key influence on the evolution of prices for most items in the CPI basket is the balance between domestic demand and supply. But the prices of some consumer goods and services are relatively insensitive to that balance, for example because they are affected by government or regulatory decisions. This box discusses recent developments in the contribution to inflation from these 'administered and regulated' prices and how that contribution might evolve in the future.

Consumer prices can be relatively insensitive to the balance between domestic demand and supply for a variety of reasons. For example, the prices of some items in the CPI basket — namely education, water supply, passenger transport by road and rail, sewerage collection and dental services — are partly determined by regulators or the government. Domestic energy prices, while not themselves regulated, are affected by changes in suppliers' non-energy costs and many of those — such as costs associated with distribution and environmental obligations — are regulated or government-controlled. And for some items, such as fuel, tobacco and alcohol, a significant fraction of the price is accounted for by duty, which is also set by government. In total, these administered and regulated prices account for around 16% of the CPI basket.

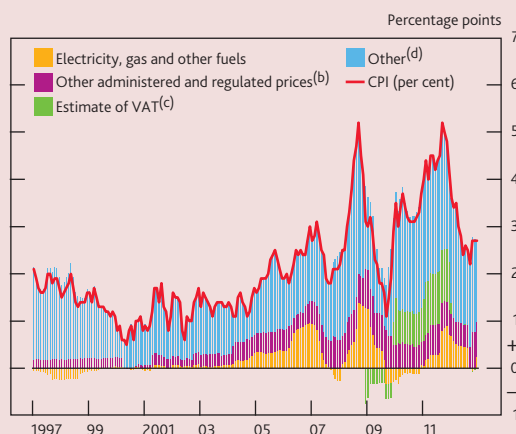
Developments in the contribution of administered and regulated prices to CPI inflation

The contribution of administered and regulated prices to CPI inflation stood at around 1 percentage point in 2012 Q4 (**Chart A**), and is likely to persist at a similar level over the next few years. That largely reflects rises in undergraduate tuition fees and in domestic energy prices (**Table 1**).

The increase in university tuition fees means that education is likely to contribute around 0.3 percentage points to CPI inflation throughout 2014 and 2015 — higher than its average contribution in the past (**Table 1**). The contribution will persist because the rise in undergraduate fees applied to new students only, and so the proportion of students paying the higher level of fees will increase at the start of the next two academic years. The exact contribution of tuition fees will depend on the size and composition of the student body, as well as on the extent to which other fees — such as those for part-time courses — rise.

The contribution of domestic energy prices to CPI inflation will increase in February 2013, as the last of the price rises announced by suppliers in 2012 H2 takes effect. And it will probably remain elevated beyond the end of 2013, even absent increases in wholesale energy prices, due to likely rises in the non-energy costs of domestic energy suppliers. Ofgem

Chart A Contributions to CPI inflation^(a)



Sources: ONS and Bank calculations.

- (a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
 (b) Comprises: education; water supply; passenger transport by road and by rail; sewerage collection; dental services; and air passenger, alcohol, road fuel, tobacco and vehicle excise duties and insurance premium tax. Dental services were not included in the CPI basket prior to 2000. Data on duties are not available prior to March 2004.
 (c) The estimate is based on Bank staff's assessment that around 20% of the VAT cut in December 2008 was passed on to consumers by the end of 2009 Q1, that around half of the increase in VAT in January 2010 was passed into consumer prices by the end of 2010 Q1, and that three quarters of the increase in VAT in January 2011 was passed into consumer prices by the end of 2011 Q1.
 (d) Calculated as a residual. Includes a rounding residual.

Table 1 Contributions of administered and regulated prices to annual CPI inflation^(a)

	Weights in CPI, 2012 (per cent)	Average contributions to annual CPI inflation (percentage points) ^(b)			Bank staff projections for 2013–14
		1997–2006	2012 Q1–Q3	2012 Q4	
Education	2	0.1	0.1	0.4	0.3
Electricity, gas and other fuels	6	0.1	0.5	0.1	0.3
Other administered and regulated prices ^(c)	8	0.2	0.4	0.4	0.4
Total ^(d)	16	0.4	0.9	0.8	1.0
Memo: annual CPI inflation	n.a.	1.5	2.9	2.7	n.a.

Sources: ONS and Bank calculations.

- (a) Data are non seasonally adjusted.
 (b) Averages of monthly data.
 (c) Comprises: water supply; passenger transport by road and by rail; sewerage collection; dental services; and air passenger, alcohol, road fuel, tobacco and vehicle excise duties and insurance premium tax. Dental services were not included in the CPI basket prior to 2000. Data on duties are not available prior to March 2004.
 (d) Total may not equal sum of components due to rounding.

recently authorised around £24 billion of investment spending over the next eight years by the companies that maintain UK gas and electricity distribution networks, part of which will be funded by increases in the prices charged to domestic energy suppliers for using these networks. In addition, the Department of Energy and Climate Change projects that current energy and climate change policies, such as the Carbon Emissions Reduction Target, will lead to modest rises in energy suppliers' costs over the next decade. Domestic energy prices could rise by around 5% per annum as a result of these increases in suppliers' costs. So the contribution of domestic energy prices to CPI inflation could remain at around ¼ percentage point throughout the forecast period.

The contribution to inflation from other administered and regulated prices, including duties, is presently higher than its average between 1997 and 2006 (Table 1). And that contribution is likely to remain higher on average over 2013 and 2014. For example, the contribution from rail fares will increase in January 2013, since the authorised increase in 2013 of 4.2% is about 1 percentage point higher than the average comparable increases between 1996 and 2007. And the contribution from road fuel duty will pick up in September 2013, assuming that the rise in duty postponed from April 2013 comes into effect.

In total, therefore, the contribution of administered and regulated prices to CPI inflation is likely to persist at around 1 percentage point in 2013 and 2014.

Implications for CPI inflation

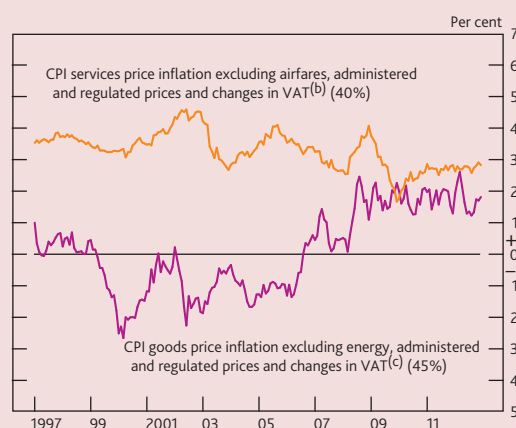
In the long run, inflation is determined by monetary policy. But movements in administered and regulated prices can affect the path of inflation over shorter horizons.

The likely contribution of administered and regulated prices to CPI inflation in 2013 and 2014, at around 1 percentage point, is about $\frac{1}{2}$ percentage point higher than its average between 1997 and 2006. During that period, CPI inflation averaged 1.5%. Such a contribution from administered and regulated prices would, therefore, be consistent with the 2% target were the contribution to CPI inflation from other goods and services in the CPI basket to be similar to its 1997–2006 average.

But the present contribution from these other goods and services prices is significantly above its 1997–2006 average

(Chart A). That is more than accounted for by other goods prices (around half of the CPI basket): other services price inflation is currently well below its 1997–2006 average rate (Chart B). In order for CPI inflation to fall to the 2% target in the medium term, the pace at which these other prices rise would therefore need to slow from its present rate to around its 1997–2006 average rate. The factors influencing these prices in the near term are discussed in Section 4; the medium-term outlook for inflation is discussed in Section 5.

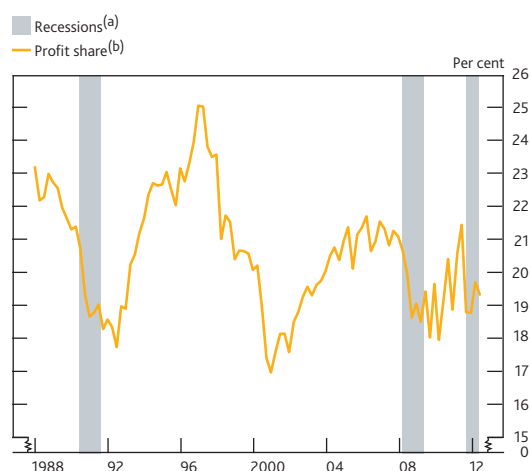
Chart B CPI goods price inflation and CPI services price inflation, excluding energy, airfares, administered and regulated prices and changes in VAT^(a)



Sources: ONS and Bank calculations.

- (a) Annual inflation rates. The estimated impact of VAT changes is based on Bank staff's assessment that around 20% of the VAT cut in December 2008 was passed on to consumers by the end of 2009 Q1, that around half of the increase in VAT in January 2010 was passed into consumer prices by the end of 2010 Q1, and that around three quarters of the increase in VAT in January 2011 was passed into consumer prices by the end of 2011 Q1. The figures in parentheses show weights in the CPI basket in 2012.
- (b) CPI services excluding airfares, passenger transport by road and by rail, sewerage collection, dental services and the estimated impact of VAT changes.
- (c) CPI goods excluding fuels and lubricants, electricity, gas and other fuels, water supply and the estimated impact of VAT changes. Duties on alcohol, road fuel and tobacco are included.

Chart 4.9 Private sector corporate profit share



Sources: ONS and Bank calculations.

- (a) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end once output began to rise.
- (b) Private sector corporates' gross trading profits (excluding the alignment adjustment), divided by nominal gross value added at basic prices, excluding general government gross operating surplus and central government and local authority compensation of employees.

Businesses have continued to pass through most, but not all, of the recent strength in labour costs into higher prices. Private sector output prices rose in the year to Q3, but by less than unit labour costs. In part reflecting that, ONS data suggest that the profit share — an indicator of companies' aggregate profit margins — remained a little below its pre-recession average (Chart 4.9). Within that, domestic-facing companies' margins, which are more important for the outlook for consumer prices, have probably been compressed by more than those of export-facing businesses, whose profits have been supported by the depreciation of the real exchange rate since mid-2007 (Chart A in the box on pages 24–25).

It is likely that profitability will have to recover so that companies can deliver sufficiently attractive returns to investors. That could occur through a reallocation of resources towards more profitable sectors of the economy. For example, some of those companies with narrow margins could shift supply towards foreign markets, or they could go out of business with their resources absorbed by companies

Table 4.D Indicators of households' and companies' inflation expectations^(a)

Per cent	Averages since 2006 ^(b)	2011	2012			2013
			H1	Q3	Q4	Jan.
One year ahead inflation expectations						
Households						
Bank/NOP	3.2	4.1	3.6	3.2	3.5	n.a.
Barclays Basix	3.2	4.0	3.3	3.0	2.9	n.a.
YouGov/Citigroup	2.7	3.4	2.7	2.6	2.8	2.8
Companies ^(c)	0.5	0.7	0.5	0.9	0.4	n.a.
Five year ahead inflation expectations ^(d)						
Households						
Bank/NOP ^(e)	3.2	3.5	3.4	3.1	3.6	n.a.
Barclays Basix ^(f)	3.9	3.9	4.0	3.7	3.8	n.a.
YouGov/Citigroup	3.4	3.6	3.4	3.4	3.5	3.4
Memo: CPI inflation	3.0	4.5	3.1	2.4	2.7	n.a.

Sources: Bank of England, Barclays Capital, CBI (all rights reserved), Citigroup, GfK NOP, ONS, YouGov and Bank calculations.

(a) Data are non seasonally adjusted. The household surveys ask about expected changes in prices but do not reference a specific price index, and the measures are based on the median estimated price change.

Companies are asked about the expected percentage price change over the coming twelve months in the markets in which they compete.

(b) Unless stated otherwise.

(c) CBI data for the manufacturing, business/consumer services and distribution sectors, weighted together using nominal shares in value added. Average since 2008 Q2.

(d) Except for YouGov/Citigroup, which is five to ten years ahead.

(e) Average since 2009 Q1.

(f) Average since 2008 Q3.

elsewhere. The restoration of margins could also occur through lower cost growth. For example, if nominal wage growth slowed relative to productivity growth, that would reduce growth in unit labour costs. Finally, some companies may be able to raise prices to restore profitability.

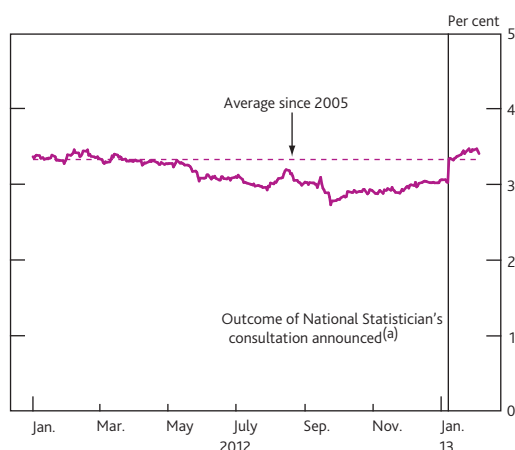
Inflation expectations

Some survey indicators of households' one year ahead inflation expectations rose slightly in 2012 Q4 (**Table 4.D**). Professional forecasters, on average, revised up their expectations too (see, for example, the box on page 50). Those increases were similar to the revision to the MPC's view of the most likely path for inflation one year ahead since November. Higher expectations of inflation in the near term could be associated with greater persistence of inflation, for example if they encourage households to bid for larger wage increases and make businesses more willing to meet those demands. But evidence from the Agents' pay survey suggests that the majority of companies do not expect inflation to lead to stronger growth in labour costs in 2013.

Indicators of households' longer-term inflation expectations have been broadly stable during the past few years, at around their series averages (**Table 4.D**). But most of these surveys have only a short backrun, covering a period when inflation averaged above the target. So it is not clear what level of reported inflation expectations is consistent with inflation being close to the target in the long term.

In recent months, indicators of longer-term inflation expectations derived from financial market instruments that reference the retail prices index (RPI) have been affected by the possibility of a change in the formulae used to calculate the index. Since these indicators reference RPI inflation, rather than the CPI measure targeted by the MPC, they will reflect market participants' expectations of both CPI inflation and the wedge between CPI and RPI inflation. That wedge exists because the two indices comprise different baskets and are calculated using different formulae.

The changes to the RPI formulae that were under consideration would have reduced the wedge between RPI and CPI inflation and so probably led many market participants to revise down their RPI inflation expectations. Indeed, market-based indicators drifted down during May 2012, when speculation about a possible change began to emerge. And they rose sharply on 10 January, when the National Statistician announced that the RPI would not be changed⁽¹⁾ (**Chart 4.10**). That, however, just brought these indicators back into line with their averages since 2005. The MPC will continue to monitor developments in inflation expectations closely (Section 5).

Chart 4.10 Five-year, five-year forward RPI inflation implied from swaps

Sources: Bloomberg and Bank calculations.

(a) The outcome of the National Statistician's consultation on options for improving the retail prices index was announced on 10 January.

(1) For more details on what was announced, see 'National Statistician announces outcome of consultation on RPI', www.ons.gov.uk/ons/dcp29904_295002.pdf.

5 Prospects for inflation

The UK economy is set for a slow but sustained recovery, aided by a further easing in credit conditions and some improvement in the global environment. The pace of the recovery is likely to be subdued by historic standards, and the risks remain weighted to the downside, albeit to a lesser extent than in November.

CPI inflation is likely to rise further in the near term, and may remain above the 2% target for the next two years. That is a higher profile than three months ago, and partly reflects a persistent inflationary impact both from ‘administered and regulated’ prices and from the recent decline in sterling. Inflation is expected to fall back to around the target by the end of the forecast period, as a gradual revival in productivity dampens domestic cost growth, and external price pressures fade.

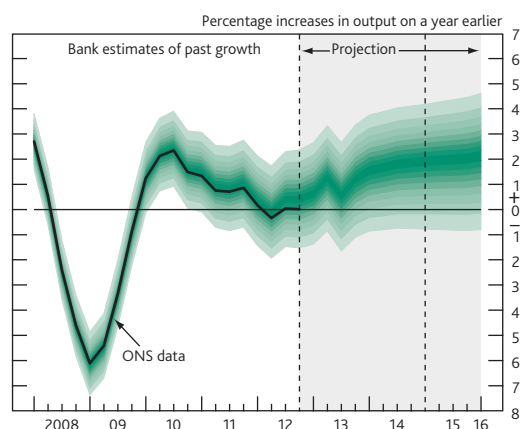
5.1 Key judgements and risks

The onset of the 2007/08 financial crisis triggered an abrupt, and substantial, reassessment of future economic prospects, both at home and overseas. The implications of that reassessment — a downward revision in future income expectations, a generalised increase in global uncertainty, and solvency concerns in the financial sector — continue to reverberate through the UK economy.

Since the sharp slowdown of 2008/09, the path of output has been markedly weaker than in a typical business cycle recovery. Growth is likely to remain relatively subdued (**Chart 5.1**) and it is more likely than not that GDP will be below its pre-crisis level until towards the end of the forecast period (**Chart 5.2**). Inflation is set to rise in the near term and may remain above 2% for the next two years, before falling back to the target thereafter (**Chart 5.3**); the corresponding projection from the November *Report* is shown in **Chart 5.4**. Overall, inflation is more likely than not to be above the target for most of the forecast period, although the risks are broadly balanced by the end (**Chart 5.5**).

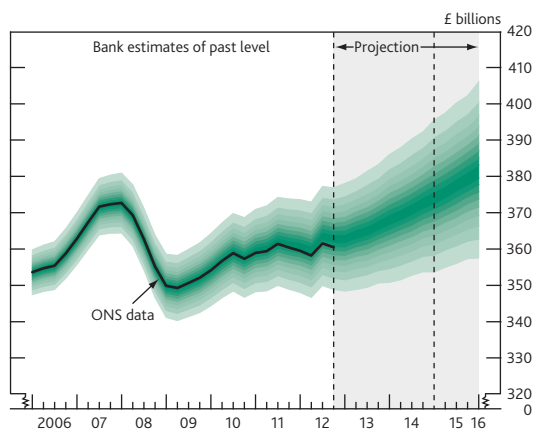
The projections are shaped by a number of key judgements on global and domestic conditions; these judgements, and the risks around them, are set out below. There is a range of views on the Committee about the relative importance of these factors, and the MPC’s best collective judgement on the overall balance of risks to demand and inflation is given in Section 5.2. Section 5.3 summarises the associated policy decision.

Chart 5.1 GDP projection based on market interest rate expectations and £375 billion asset purchases



The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchases financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP growth is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 5.1**, the probabilities in the lower bands are slightly larger than those in the upper bands at Years 1, 2 and 3. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

Chart 5.2 Projection of the level of GDP based on market interest rate expectations and £375 billion asset purchases



Chained-volume measure (reference year 2009). See the footnote to Chart 5.1 for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with Chart 5.1. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

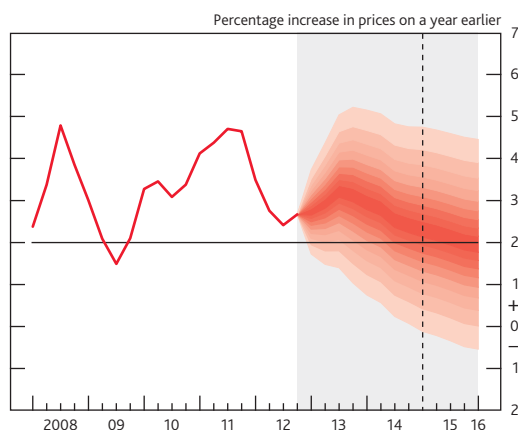
Key Judgement 1: international policy initiatives facilitate a sustained, but gradual, global recovery

The continuing fallout from the financial crisis has led central banks to put in place exceptionally stimulative monetary policies. A variety of other supportive initiatives have also been announced, such as the European Central Bank's Outright Monetary Transactions. To date, these initiatives have diminished investor perceptions of near-term risks, and fostered financial market optimism.

A key judgement embodied in the Committee's forecasts is that policy initiatives will continue to provide support in the face of the continuing need for global, and regional, rebalancing. In the United States, the fiscal adjustment is assumed to be orderly. In the euro area, policymakers are assumed to put conditions in place that allow those member countries that need to rebalance to do so in a gradual, and orderly, fashion. In key emerging economies, policymakers are assumed to succeed in averting an abrupt slowdown in growth. Against this backdrop, global demand growth is projected to recover gradually, with a weak outlook for the euro area counterbalanced by relatively buoyant prospects for the United States and emerging economies.

There are, however, significant risks to this central view. Prospects for the euro area remain key, with some member countries still facing considerable medium-term challenges in reducing debt and increasing competitiveness. As in previous *Reports*, the MPC's projections exclude the most extreme outturns that may be associated with disorderly adjustment in the euro area. But even aside from those extreme outturns, there remains a risk that the requisite adjustment proves to be a greater drag on growth than assumed in the central view.

Chart 5.3 CPI inflation projection based on market interest rate expectations and £375 billion asset purchases



Charts 5.3 and 5.4 depict the probability of various outcomes for CPI inflation in the future. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan charts are constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In Charts 5.3 and 5.4, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed lines are drawn at the respective two-year points.

Chart 5.4 CPI inflation projection in November based on market interest rate expectations and £375 billion asset purchases

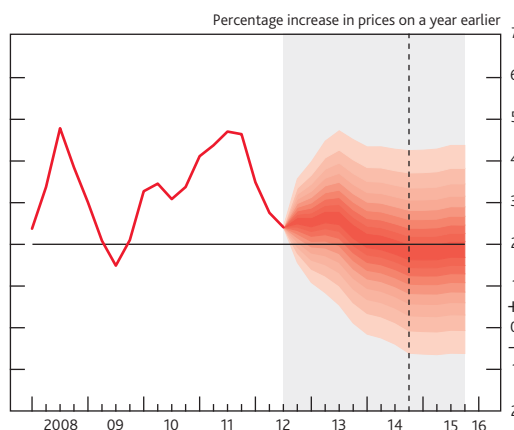
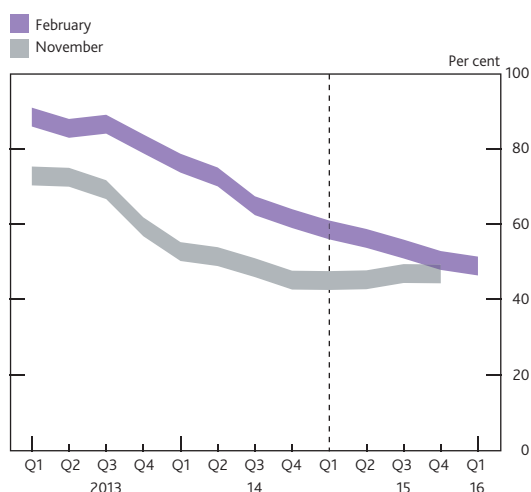


Chart 5.5 An indicator of the probability that inflation will be above the target



The February and November swathes in this chart are derived from the same distributions as Charts 5.3 and 5.4 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swathes reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the February projection. The two-year point of the November projection was one quarter earlier.

Set against those downside risks, the assumption of a relatively subdued recovery in global demand may prove too pessimistic. In particular, burgeoning optimism in financial markets, together with the associated re-emergence of risk appetite, could spur a more potent recovery.

In the Committee's central view, the recovering global economy provides a moderate boost to UK exports. But UK export performance has disappointed in the recent past, in part due to a decline in financial services exports (see the box on pages 24–25). There is therefore a risk that exporters fail to capitalise on the global recovery to the degree implied by the central view.

In monitoring this judgement, the MPC will particularly focus on: indicators of global growth, including business surveys; global business and consumer confidence; indicators of financial market sentiment; and evidence on UK export performance, including intelligence from the Bank's Agents.

Key Judgement 2: sustained declines in bank funding costs lead to a further easing in UK credit conditions

For most of the post-crisis period, UK banks have faced persistently high funding costs, materially impairing the supply of bank credit. But funding costs have fallen sharply in the wake of international policy initiatives, as well as the launch of the Funding for Lending Scheme (FLS). A key judgement underpinning the MPC's forecasts is that this boosts the availability of bank loans to households and businesses, and reduces their cost.

Initial evidence on the pass-through of lower funding costs into credit conditions has been broadly in line with the judgements made by the Committee at the time of the November Report. But there is further to go. In particular, helped by the FLS, the projections assume material further falls in loan rates this year, and, over time, a drift up in lending growth. Throughout 2013, the FLS is also expected to act as an effective backstop in bank funding markets, should market conditions deteriorate.

The outlook for credit conditions is uncertain. There is a risk that adverse developments in financial markets lead to renewed rises in bank funding costs. And even if funding costs continue to move lower, there is a risk that the pass-through into loan rates is smaller than expected. For example, competition between retail banks may be insufficiently keen to deliver the degree of credit easing implied by the central profile. More broadly, some major UK banks are only part way through the process of balance sheet repair. If those banks that need to strengthen their capital do not take appropriate action, credit conditions would be tighter in the medium term than anticipated in the central view.

The MPC's projections assume that improved credit conditions are accompanied by a modest rise in the demand for bank loans, and that this feeds through fairly slowly into aggregate demand and effective supply. That relatively cautious stance reflects a judgement that the private sector is still adjusting to the reassessment of economic prospects, as set out below.

In monitoring this judgement, the MPC will particularly focus on: indicators of wholesale bank funding costs; loan rates facing households and businesses; and evidence on the cost and availability of credit from surveys, including the Bank's *Credit Conditions Survey*, as well as from the Bank's Agents.

Key Judgement 3: the reverberations of past shocks diminish, allowing consumer and business spending to recover gradually

The abrupt reassessment of economic prospects that accompanied the onset of the financial crisis has weighed on domestic spending in a number of ways. It prompted a downward revision in expectations about future income levels. It triggered a sharp rise in uncertainty. And it prompted households and companies to re-evaluate the likely availability, and cost, of credit. Together, these factors have caused households and businesses to rein in spending, and increased the propensity of the private sector to save.

The Committee's projections embody the assumption that the reverberations of past shocks slowly diminish, allowing a gradual recovery in spending. In the central view, stimulative monetary policy, improved credit conditions and dissipating uncertainty help to support a steady, albeit unspectacular, recovery in household and business expenditure. The relatively subdued pace of expansion reflects the fact that the adjustment to past shocks takes time. There is a continued drag on activity from the fiscal consolidation.

There are risks to this judgement, in both directions. One risk is that the after-effects of past shocks are more persistent than assumed. That risk is especially pertinent to the household sector. For example, weak real take-home pay means that some households will have struggled to save as much as they would have liked. And, for some households, the desire to build up savings will have been particularly intense (say because of heightened concerns among heavily indebted households about their vulnerability to future income weakness or higher loan rates). Compared with the Committee's central view, consumers could therefore be less prone to borrow, and more inclined to save additional income rather than spend it.

Set against this is the possibility that the adjustment is largely complete, and that there is a relatively forceful upswing in spending. This is particularly relevant to the corporate sector, where balance sheets are, in aggregate, comparatively strong. In particular, as credit conditions ease and uncertainty over demand dissipates, business investment could rise strongly

from its current low levels as companies implement previously delayed projects, and increase investment in new capacity.

In monitoring this judgement, the MPC will particularly focus on: net lending data for companies and consumers; trends in the saving ratio; surveys of investment intentions; business investment data; movements in broad money; and surveys of consumer and business confidence.

Key Judgement 4: a gradual revival in productivity growth helps to contain domestic inflationary pressures

Since the middle of 2010, measured productivity has fallen — there has been sluggish growth in output, but buoyant growth in employment. As discussed in previous *Reports*, the fall in productivity could reflect a number of factors. Potential explanations include: the impairment of the banking sector, and associated impediments to the efficient allocation of capital; and heightened uncertainty, and its adverse implications for investment and capital. The weakness in demand itself has probably also played a role; for example, employees may need to work much harder to generate sales than they would do in more buoyant demand conditions, or companies may be unwilling to shed skilled labour.

During the forecast period, the MPC anticipates that the slow healing of the financial sector will continue, and that uncertainty will slowly dissipate. In the central view, that supports a gradual recovery in both demand and effective supply. Employment is likely to rise only a little: labour market slack is assumed to persist through the forecast period, helping to contain wage growth. The projections assume that some of the associated easing in domestic cost growth is passed onto the customer in the form of lower inflation, while some is absorbed into higher company profit margins. Consequently, company profit margins, which have been under pressure in the recent past (especially in the consumer sector), are projected to widen gradually over the forecast period.

One possibility is that productivity recovers more rapidly than expected. This could happen, if, for example, the weakness of demand itself is playing a greater role in restraining productivity than currently assumed, such that productivity growth increases rapidly once economic prospects brighten. Were wage growth to remain muted, a strong revival in productivity growth would be associated with a sharp decline in domestic cost growth. And that would lead inflation to be lower than in the central view, particularly if companies pass most of the benefits from lower costs onto their customers.

However, wage and price-setting behaviour are also the source of upside risk. In particular, the Committee's assumption that wage and price inflation will remain muted as demand recovers could prove misplaced. First, wage growth may prove less benign than anticipated — for example, if employees seek to recoup past erosion of their real wages, or if employers use

higher pay to motivate and retain their staff. Second, even if domestic cost pressures moderate as anticipated, companies may take the opportunity to raise margins by more than embodied in the central view. More generally, sustained above-target inflation may affect expectations of future inflation, leading to higher wage claims and bigger price increases.

A final risk relates to the outlook for employment. The recent pattern of strong growth in employment and weak growth in output is unlikely to continue indefinitely. The Committee's central view is that the anticipated productivity revival will be driven by increases in output rather than falls in employment. But if the pace of the recovery proves to be more sluggish than expected, or if worsening finances force companies to reduce costs, then this would pose downside risks to employment and activity.

In monitoring this judgement, the MPC will particularly focus on: data and surveys on employment; capacity surveys; data on labour productivity; indicators of wage costs; and indicators of inflation expectations.

Key Judgement 5: the inflationary impact of administered prices and sterling is only partly offset by price changes elsewhere

In the Committee's central view, both 'administered and regulated' prices and the sterling exchange rate push up inflation through much of the forecast period. Administered and regulated prices are likely to contribute around 1 percentage point to CPI inflation over the next few years, more than their recent average (see the box on pages 36–37). And UK import prices will be a further source of upward inflationary pressure, with sterling more than 3% lower in the run-up to the *February Report* than was the case three months earlier. The upward impetus from sterling is most marked in the first year of the forecast. Thereafter, external pricing pressures are assumed to fade: sterling's impact on import price inflation wears off, and there is an easing in commodity price inflation, with futures curves broadly flat.

The Committee's judgement on the likely impact on overall inflation of both administered prices and the exchange rate rests on a number of assumptions. The first surrounds the evolution of these influences themselves. The outlook for administered and regulated prices is largely determined by government and regulatory policy. As ever, there is uncertainty about the future path for sterling: the Committee's projections use the usual conditioning path for the exchange rate (see the box on page 45). There is also uncertainty about the likely degree, and speed, of pass-through from sterling's depreciation into CPI inflation. The MPC's central view assumes that pass-through is similar to that seen in the wake of the 2007/08 depreciation.

Forecast conditioning assumptions

As a benchmark assumption, the projections for GDP growth and CPI inflation described in **Charts 5.1** and **5.3** are conditioned on a path for Bank Rate implied by market interest rates (**Table 1**). In the period leading up to the MPC's February decision, the path implied by forward market interest rates was for Bank Rate to be a little below 0.5%, the current level of Bank Rate, in the first part of the forecast period, and then to rise gradually thereafter. The path for Bank Rate at the time of the February *Report* was, on average, less than 0.1 percentage points higher than that assumed in the November *Report*.

Table 1 Conditioning path for Bank Rate implied by forward market interest rates^(a)

Per cent	2013				2014				2015				2016
	Q1 ^(b)	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
February	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9
November	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.8	

(a) The data are fifteen working day averages of one-day forward rates to 6 February 2013 and 7 November 2012 respectively. The curves are based on overnight index swap rates.

(b) February figure for 2013 Q1 is an average of realised spot rates to 6 February 2013, and forward rates thereafter.

The stock of asset purchases is defined as the cumulative amount spent on assets, less the proceeds from any asset sales and cash flows from the Government to the Asset Purchase Facility (APF) when gilts mature. The cash flows made when a gilt matures comprise the redemption payment on the gilt, together with the cash flow resulting from the indemnity provided by HM Treasury to the Bank of England in order to cover any difference between the redemption payment and the original amount invested. The February projections are conditioned on the assumption that the total stock of asset purchases financed by the creation of central bank reserves remains at £375 billion throughout the forecast period, the same total scale of purchases assumed in the November projections.

The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 81.0, the average for the fifteen working days to 6 February. That was 3.3% below the starting point for the November projections. Under the MPC's usual convention,⁽¹⁾ the exchange rate is assumed to remain broadly flat, and is lower throughout the forecast period than was assumed in November.

The starting point for UK equity prices in the MPC's projections was 3279 — the average of the FTSE All-Share for the fifteen working days to 6 February. That was 7.4% above the starting point for the November projection.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the forecast period. Average Brent oil futures prices for the next three years were around 4% higher (in US dollar terms) than at the time of the November *Report*. Wholesale gas futures prices were around 1% higher over the forecast period. Major energy suppliers, however, anticipate that their non-energy costs — which were cited by most as a reason for the Autumn 2012 price rises — will continue to increase in coming years and the central projection is therefore conditioned on a benchmark assumption of increases in domestic gas and electricity prices averaging 5% each year (see the box on pages 36–37 for more details).

In line with the usual convention, the Committee's projections are conditioned on the Government's tax and spending plans. For this forecast, this means the plans set out in the 2012 March *Budget*, updated for the Autumn Statement and supplemented by the Office for Budget Responsibility's associated *Economic and Fiscal Outlook*. They also take account of the transfers of gilt coupons received by the APF, net of interest costs and other expenses, to the Exchequer. The subsequent use of these cash flows to pay down government debt will have an effect similar to the MPC purchasing gilts of the same value.

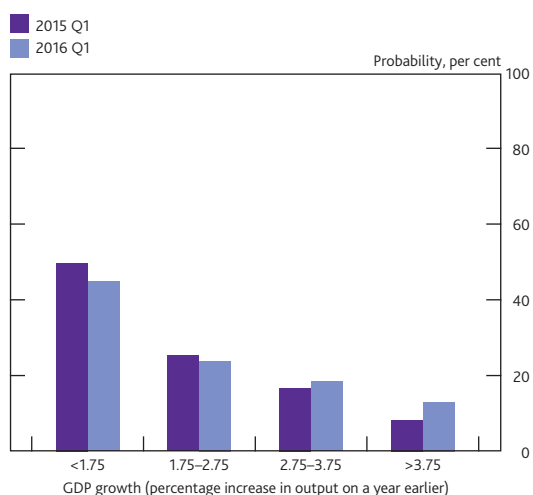
(1) The convention is that the sterling exchange rate follows a path which is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.

The outlook for external pricing pressures more generally is another source of uncertainty. For example, the risks are probably weighted to the upside for food commodity prices: some stocks are relatively low, making prices sensitive to adverse weather patterns. For oil, near-term upside risks stem from potential geopolitical tensions. In the medium term, however, the risks to oil prices look more balanced, and could even be weighted to the downside given the likely impact on market dynamics of alternative energy sources such as US shale oil.

In the longer run, the overall rate of inflation is determined by the stance of monetary policy. But the adjustment to a relative price shock can be drawn out as economy-wide prices and wages can take time to respond. In the central view, the relative price adjustment is assumed to be fairly protracted, such that both the fall in the exchange rate and increases in administered prices raise CPI inflation through much of the forecast period. There is considerable uncertainty about the speed of the transmission of these relative price shocks through the economy, posing risks to the inflation projection in both directions.

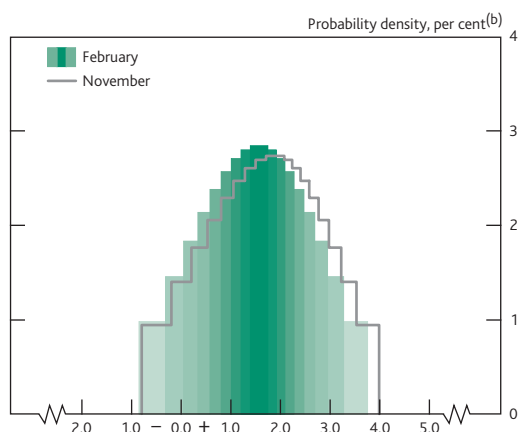
In monitoring this judgement, the MPC will particularly focus on: the evolution of administered and regulated prices; developments in commodity prices; market intelligence of the risks around commodity prices; the sterling ERI; and trends in UK import prices.

Chart 5.6 Frequency distribution of GDP growth based on market interest rate expectations and £375 billion asset purchases^(a)



(a) These figures are derived from the same distribution as Chart 5.1. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

Chart 5.7 Projected probabilities of GDP growth in 2014 Q1 (central 90% of the distribution)^(a)



(a) Charts 5.7 and 5.8 represent cross-sections of the GDP growth fan chart in 2014 Q1 and 2015 Q1 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. The coloured bands in Charts 5.7 and 5.8 have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that GDP growth in 2014 Q1 and 2015 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. GDP growth would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in Charts 5.7 and 5.8 represent the corresponding cross-sections of the November 2012 Inflation Report fan chart, which was conditioned on the same assumption about the stock of purchased assets financed by the issuance of central bank reserves.

(b) Average probability within each band; the figures on the y-axis indicate the probability of growth being within ± 0.05 percentage points of any given growth rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

5.2 The projections for demand and inflation

Taking these key judgements together, the Committee's best collective view continues to be that the UK economy is set for a slow, but sustained, recovery in both demand and effective supply. That recovery is aided by an easing in credit conditions — supported by the Bank's programme of asset purchases and by the FLS — and by some improvement in the global environment. Four-quarter growth is judged likely to pick up gradually over the forecast period, albeit with some volatility in 2013 as the one-off events that affected growth in 2012 drop out of the four-quarter comparison.

The subdued recovery means that there is a roughly three-in-four chance that four-quarter output growth will be below its historical average in 2015 Q1 and 2016 Q1 (Chart 5.6).

Chart 5.8 Projected probabilities of GDP growth in 2015 Q1 (central 90% of the distribution)^(a)

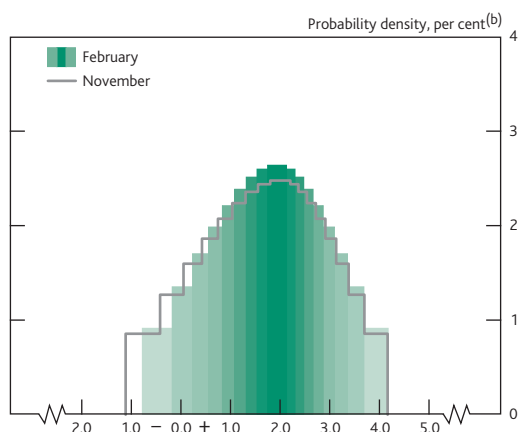
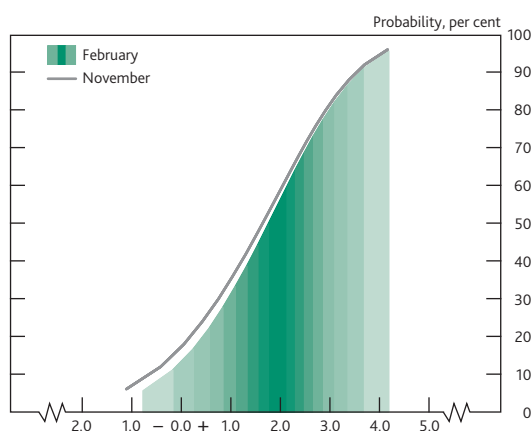


Chart 5.9 and Table 5.A Projected cumulative probabilities of four-quarter GDP growth in 2015 Q1^(a)**Chart 5.9****Table 5.A**

Probability	10%	25%	50%	75%	90%
2015 Q1	-0.3	0.7	1.8	2.7	3.6
2015 Q1 (November Report)	-0.6	0.5	1.6	2.7	3.5

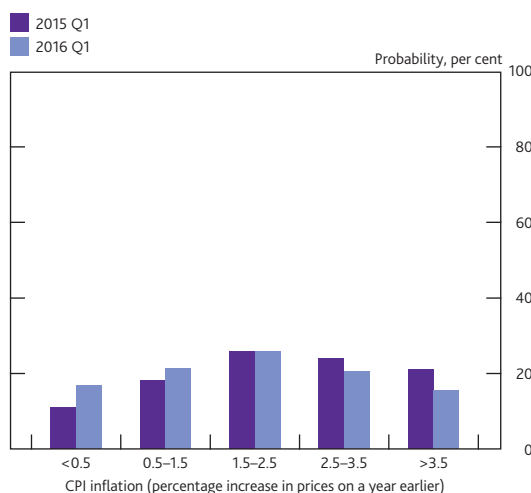
(a) **Chart 5.9** and **Table 5.A** show the probability of four-quarter GDP growth being at or below different growth rates. They are based on the 2015 Q1 cross-sections of the GDP growth fan charts in the February 2013 and November 2012 *Inflation Reports*, which are conditioned on market interest rates and the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. This information can be used to infer the probability of growth lying in any given interval. For example, in the February projection there is a 25% probability that growth lies between 1.8% and 2.7%. The bands in **Chart 5.9** have been coloured to match the equivalent fan chart bands. In order to construct the chart, the probability mass allocated to each of the upper and lower tails is assumed to be in line with the skew assumed for the central 90% of the distribution.

The risks to the central view on growth are weighted to the downside, reflecting the possibility that the after-effects of past shocks will be more persistent than anticipated, both at home and overseas. That said, those downside risks are judged to be smaller than in November: international policy actions have reduced the perceived likelihood of disorderly outturns in the near term, and financial market sentiment has improved (**Charts 5.7** and **5.8**).

Chart 5.9 and **Table 5.A** provide an alternative presentation of the information in **Chart 5.8**. **Chart 5.9** — known as a cumulative distribution function — cumulates the area under the histogram **Chart 5.8** so as to show the total probability that growth is less than any particular value. For example, there is a 50% chance that four-quarter growth will be at or below 1.8% in 2015 Q1. That compares with a 50% chance of four-quarter growth at or below 1.6% in the corresponding projections in November.

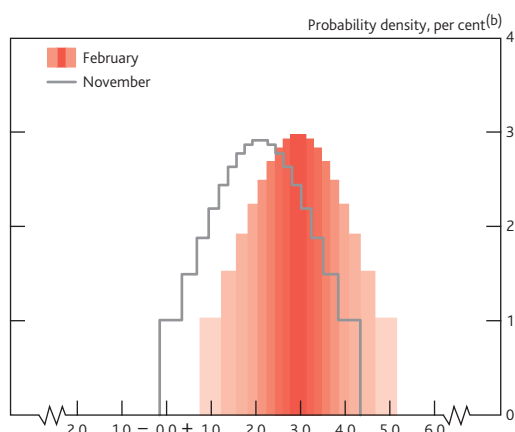
CPI inflation is likely to rise further in the near term and remain above the 2% target for most of the forecast period. That reflects sterling's recent depreciation, as well as a persistent upward contribution from administered and regulated prices. However, by the end of the forecast period, inflation is likely to have fallen back to around the target. That reflects the judgement that a revival in productivity growth helps to contain domestic cost pressures, that wage growth is muted in the face of persistent slack in the labour market, and that external pricing pressures ease.

The risks to the inflation target are to the upside for much of the forecast period, but broadly balanced by the end. There is still a roughly three-in-four chance that inflation will be more than half a percentage point away from the target at the end of the forecast horizon (**Chart 5.10**). Compared with the *November Report*, the outlook for inflation is higher for much

Chart 5.10 Frequency distribution of CPI inflation based on market interest rate expectations and £375 billion asset purchases^(a)

(a) These figures are derived from the same distribution as **Chart 5.3**. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

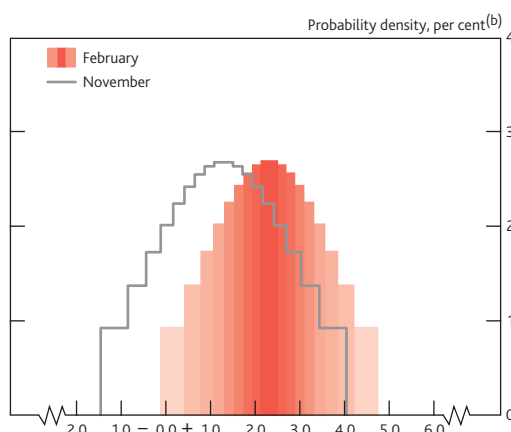
Chart 5.11 Projected probabilities of CPI inflation outturns in 2014 Q1 (central 90% of the distribution)^(a)



(a) **Charts 5.11 and 5.12** represent cross-sections of the CPI inflation fan chart in 2014 Q1 and 2015 Q1 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. The coloured bands in **Charts 5.11 and 5.12** have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2014 Q1 and 2015 Q1 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in **Charts 5.11 and 5.12** represent the corresponding cross-sections of the November 2012 *Inflation Report* fan chart, which was conditioned on the same assumption about the stock of purchased assets financed by the issuance of central bank reserves.

(b) Average probability within each band; the figures on the y-axis indicate the probability of inflation being within ± 0.05 percentage points of any given inflation rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

Chart 5.12 Projected probabilities of CPI inflation outturns in 2015 Q1 (central 90% of the distribution)^(a)



of the forecast period (**Charts 5.11 and 5.12**), reflecting the lower exchange rate and a judgement that administered prices will have a more persistent impact on inflation. **Chart 5.13** and **Table 5.B** show an alternative way of presenting the information in **Chart 5.12**. The cumulative distribution function shows that, in the latest projections, there is a 50% chance that inflation will be at or below 2.3% in 2015 Q1. That compares with a 50% chance of inflation at or below 1.8% in the corresponding November *Report* projections.

As in previous *Reports*, the Committee's projections are conditioned on the assumption that Bank Rate follows a path implied by market yields, and that the stock of purchased assets remains at £375 billion. That is the same total scale of purchases as in November, and includes the reinvestment of the £6.6 billion cash flows associated with the maturing

Chart 5.13 and Table 5.B Projected cumulative probabilities of four-quarter CPI inflation in 2015 Q1^(a)

Chart 5.13

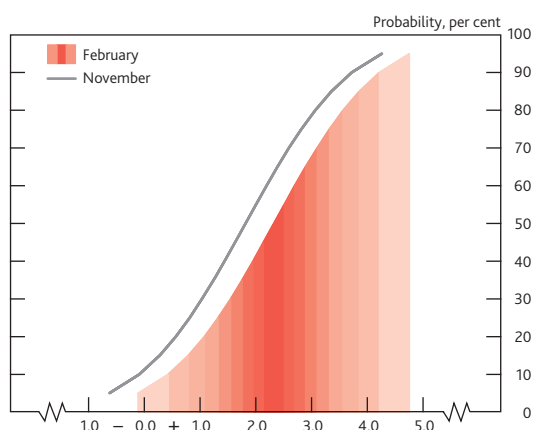
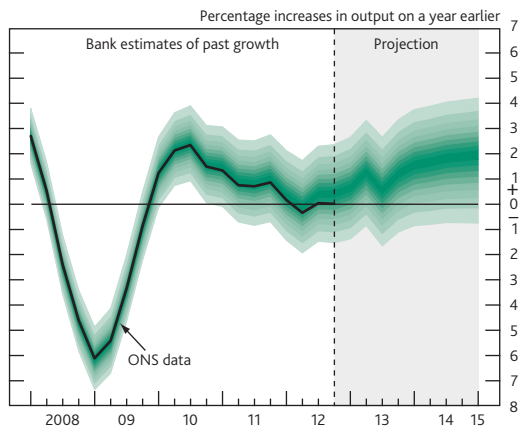


Table 5.B

Probability	10%	25%	50%	75%	90%
2015 Q1	0.4	1.3	2.3	3.3	4.2
2015 Q1 (November <i>Report</i>)	-0.1	0.8	1.8	2.8	3.7

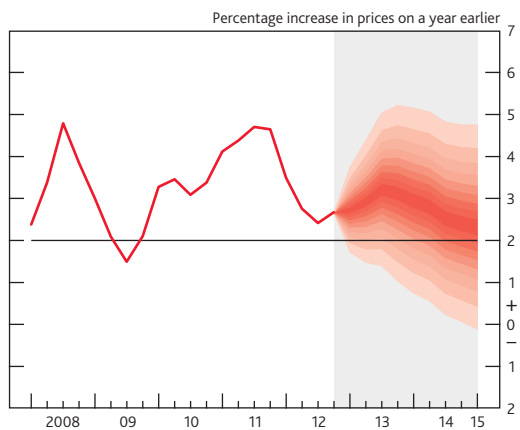
(a) **Chart 5.13 and Table 5.B** show the probability of CPI inflation being at or below different inflation rates. They are based on the 2015 Q1 cross-sections of the inflation fan charts in the February 2013 and November 2012 *Inflation Reports*, which are conditioned on market interest rates and the assumption that the stock of purchased assets financed by the issuance of central bank reserves remains at £375 billion throughout the forecast period. This information can be used to infer the probability of inflation lying in any given interval. For example, in the February projection there is a 25% probability that inflation lies between 2.3% and 3.3%. The bands in **Chart 5.13** have been coloured to match the equivalent fan chart bands. In order to construct the chart, the probability mass allocated to each of the upper and lower tails is assumed to be in line with the skew assumed for the central 90% of the distribution.

Chart 5.14 GDP projection based on constant nominal interest rates at 0.5% and £375 billion asset purchases



See footnote to Chart 5.1.

Chart 5.15 CPI inflation projection based on constant nominal interest rates at 0.5% and £375 billion asset purchases



See footnote to Chart 5.3.

March 2013 gilt. Charts 5.14 and 5.15 show the projections for growth and inflation on the alternative conditioning assumption that Bank Rate is held constant.

5.3 The policy decision

At its February meeting, the Committee noted that a slow recovery in GDP growth was likely, although there was a material risk that growth could continue to disappoint on the downside. Inflation was set to rise further in the near term and could remain above the target for the next two years. But it was likely to fall back to around the target by the end of 2015.

The Committee discussed the appropriate policy response to the combination of the weakness in the economy and the prospect of a further prolonged period of above-target inflation. It agreed that, as long as domestic cost and price pressures remained consistent with inflation returning to the target in the medium term, it was appropriate to look through the temporary, albeit protracted, period of above-target inflation. Attempting to bring inflation back to the target sooner by removing the current policy stimulus more quickly than currently anticipated by financial markets would risk derailing the recovery and undershooting the inflation target in the medium term. The MPC's remit is to deliver price stability, but to do so in a way that avoids undesirable volatility in output. The Committee judged that its policy stance was fully consistent with that remit. The Committee agreed that it stood ready to provide additional monetary stimulus if warranted by the outlook for growth and inflation.

In the light of those considerations, the Committee decided that it was appropriate to maintain Bank Rate at 0.5% and the size of the asset purchase programme at £375 billion in order to meet the 2% CPI inflation target over the medium term.

Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. This box reports the results of the most recent survey, carried out during January. On average, respondents expected annual CPI inflation to fall back to 2.2% by 2014 Q1 and to remain close to the 2% target thereafter. Four-quarter GDP growth was, on average, projected to recover gradually, but to remain below its historical average rate over the next three years (Table 1). The average central projections for both inflation and GDP growth were modestly higher than in November.

Table 1 Averages of other forecasters' central projections^(a)

	2014 Q1	2015 Q1	2016 Q1
CPI inflation ^(b)	2.2	2.2	2.1
GDP growth ^(c)	1.3	1.9	2.2
Bank Rate (per cent)	0.5	0.7	1.3
Stock of purchased assets (£ billions) ^(d)	402	406	399
Sterling ERI	83.2	83.2	83.2

Source: Projections of outside forecasters as of 29 January 2013.

(a) For 2014 Q1, there were 23 forecasts for CPI inflation, GDP growth and Bank Rate, 21 for the stock of purchased assets and 15 for the sterling ERI. For 2015 Q1, there were 20 forecasts for CPI inflation and GDP growth, 21 for Bank Rate, 18 for the stock of purchased assets and 14 for the sterling ERI. For 2016 Q1, there were 19 forecasts for CPI inflation and GDP growth, 20 for Bank Rate, 18 for the stock of purchased assets and 14 for the sterling ERI.

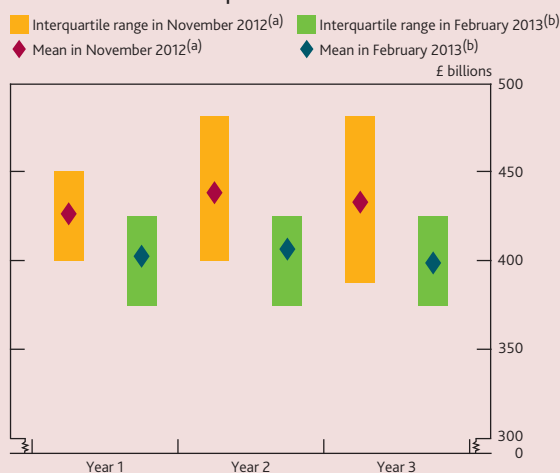
(b) Twelve-month rate.

(c) Four-quarter percentage change.

(d) Original purchase value. Purchased via the creation of central bank reserves.

These forecasts assumed a slightly tighter monetary stance than the forecasts made in October. While the average projection for Bank Rate was unchanged, respondents, on average, expected the stock of asset purchases financed by central bank reserves to be around £35 billion lower by the three-year horizon (Chart A). And the central range of views was narrower in years two and three. The level of the sterling ERI was, however, expected to be 0.7% lower on average over the next three years.

Chart A Range of other forecasters' central assumptions for the stock of asset purchases



Sources: Projections of 24 outside forecasters as of 1 November 2012 and 29 January 2013.

(a) 20 forecasters provided assessments for 2013 Q4, 16 for 2014 Q4 and 16 for 2015 Q4.

(b) 21 forecasters provided assessments for 2014 Q1, 18 for 2015 Q1 and 18 for 2016 Q1.

The Bank also asks forecasters for their assessment of the risks around their central projections for CPI inflation and GDP growth (Table 2). The average probability assigned to inflation being above target one year ahead was higher than three months ago, such that inflation was judged more likely to be above the target than below it. Respondents judged that inflation was a little more likely to be above the target than below it at the three-year horizon too. At the time of the November survey, the risks had been judged to be balanced.

Table 2 Other forecasters' probability distributions for CPI inflation and GDP growth^(a)

CPI inflation		Range:						
Probability, per cent		<0%	0–1%	1–1.5%	1.5–2%	2–2.5%	2.5–3%	>3%
2014 Q1		2	5	10	24	29	19	12
2015 Q1		3	7	12	21	26	19	12
2016 Q1		3	7	12	21	25	19	13
GDP growth		Range:						
Probability, per cent		<-1%	-1–0%	0–1%	1–2%	2–3%	>3%	
2014 Q1		4	11	28	35	15	6	
2015 Q1		3	8	19	34	25	12	
2016 Q1		3	6	15	30	28	17	

Source: Projections of outside forecasters as of 29 January 2013.

(a) For 2014 Q1, 23 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter GDP growth falling in the ranges shown above. Twenty provided assessments for 2015 Q1 and 19 provided them for 2016 Q1. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

Consistent with only small revisions to their central projections for GDP growth, respondents' assessment of the balance of risks to GDP growth over the next three years were, on average, barely changed from three months ago. As had been the case in recent surveys, respondents judged, on average, that growth at the three-year horizon was more likely to be below 1% than above 3% (Chart B).

Chart B Average of other forecasters' probabilities of GDP growth below 1% and above 3% three years ahead



Sources: Projections of outside forecasters provided for *Inflation Reports* between February 2009 and February 2013.

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Text of Bank of England press notice of 6 December 2012

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

The minutes of the meeting will be published at 9.30 am on Wednesday 19 December.

Text of Bank of England press notice of 10 January 2013

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

The minutes of the meeting will be published at 9.30 am on Wednesday 23 January.

Text of Bank of England press notice of 7 February 2013

Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

Over the past year, there has been considerable volatility in quarterly output growth. Looking through the influence of temporary factors, overall output appears to have been broadly flat. In large part that reflects sharp falls in particular sectors of the economy that are unlikely to be repeated in 2013. In contrast, the combined output of the manufacturing and services sectors has grown modestly. Business surveys suggest the pace of expansion is likely to remain muted in the near term. The weakness in overall output sits in sharp contrast to continued strong employment growth, suggesting that the financial crisis may have had some impact on the effective supply capacity of the economy.

The MPC continues to judge that the UK economy is set for a slow but sustained recovery in both demand and effective supply, aided by a further easing in credit conditions — supported by the Bank's programme of asset purchases and the Funding for Lending Scheme — and some improvement in the global environment. But the risks are weighted to the downside, not least because of the challenges facing the euro area.

Inflation has remained stubbornly above the 2% target. Despite subdued pay growth, weak productivity has meant no corresponding fall in domestic cost pressures. And increases in university tuition fees and domestic energy bills, largely resulting from administrative decisions rather than market forces, have added to inflation more recently. CPI inflation is likely to rise further in the near term and may remain above the 2% target for the next two years, in part reflecting a persistent inflationary impact both from administered and regulated prices and the recent decline in sterling. But inflation is expected to fall back to around the target thereafter, as a gradual revival in productivity growth dampens increases in domestic costs and external price pressures fade.

The Committee discussed the appropriate policy response to the combination of the weakness in the economy and the prospect of a further prolonged period of above-target inflation. It agreed that, as long as domestic cost and price pressures remained consistent with inflation returning to the target in the medium term, it was appropriate to look through the temporary, albeit protracted, period of above-target inflation. Attempting to bring inflation back to target sooner by removing the current policy stimulus more quickly than currently anticipated by financial markets would risk derailing the recovery and undershooting the inflation target in the medium term. The MPC's remit is to deliver price stability, but to do so in a way that avoids undesirable volatility in output. The Committee judged that its policy stance was fully consistent with that remit. The Committee agreed that it stood ready to provide additional monetary stimulus if warranted by the outlook for growth and inflation.

Against that backdrop, the Committee decided that it was appropriate to maintain Bank Rate at 0.5% and the size of the asset purchase programme at £375 billion in order to meet the 2% CPI inflation target over the medium term.

The Committee also noted that the Asset Purchase Facility's holdings of the March 2013 gilt would mature at the time of the Committee's next meeting. The Committee voted that it would reinvest the cash flows of £6.6 billion associated with this redemption.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published at 10.30 am on Wednesday 13 February.

The minutes of the meeting will be published at 9.30 am on Wednesday 20 February.

Glossary and other information

Glossary of selected data and instruments

AWE – average weekly earnings.

CDS – credit default swap.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

ERI – exchange rate index.

GDP – gross domestic product.

LFS – Labour Force Survey.

M4 – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

Abbreviations

APF – Asset Purchase Facility.

BCC – British Chambers of Commerce.

CBI – Confederation of British Industry.

CCS – Credit Conditions Survey.

CEIC – CEIC Data Company Ltd.

CFO – chief financial officer.

CIPS – Chartered Institute of Purchasing and Supply.

ECB – European Central Bank.

EU – European Union.

FLS – Funding for Lending Scheme.

FOMC – Federal Open Market Committee.

FPC – Financial Policy Committee.

FTSE – Financial Times Stock Exchange.

G7 – Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – Her Majesty's Revenue and Customs.

IMF – International Monetary Fund.

ISM – Institute for Supply Management.

MFIs – monetary financial institutions.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

NBER – National Bureau of Economic Research.

OECD – Organisation for Economic Co-operation and Development.

OFCs – other financial corporations.

Ofgem – Office of Gas and Electricity Markets.

ONS – Office for National Statistics.

OPEC – Organization of the Petroleum Exporting Countries.

PNFCs – private non-financial corporations.

PwC – PricewaterhouseCoopers.

RICS – Royal Institution of Chartered Surveyors.

S&P – Standard & Poor's.

SITC – Standard International Trade Classification.

VAT – Value Added Tax.

Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Bank of England or the Office for National Statistics (ONS) and all data, apart from financial markets data, are seasonally adjusted.

n.a. = not available.

Because of rounding, the sum of the separate items may sometimes differ from the total shown.

On the horizontal axes of graphs, larger ticks denote the first observation within the relevant period, eg data for the first quarter of the year.

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